



Coastal Georgia

Regional Bicycle and Pedestrian Plan

Adopted: May 11, 2005

Prepared for:



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PREPARED BY

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NOTE: Each of these maps is printed from a Geographic Information System (GIS) coverage created for this plan. Coverages for pedestrian and bicycle crashes 2000 – 2003 have also been created to identify concentration areas of crashes. All GIS coverages are being provided to local governments and MPOs in the region for future more detailed analysis and planning.

Executive Summary

The Coastal Georgia Regional Development Center (RDC) has prepared the Coastal Georgia Regional Bicycle and Pedestrian Plan for our 10-county region. The plan was prepared under contract to the Georgia Department of Transportation (GDOT). The plan assesses bicycling and walking conditions in the region, summarizes local and state plans, and recommends measures to improve bicycle and pedestrian accommodations and safety.

Planning Process

The Coastal Region Bicycle and Pedestrian Committee (BPAC) held six meetings from March through November 2004 to assist in the development of the plan. The BPAC is an ad hoc committee with representation from bicycle organizations and businesses, local governments, the three metropolitan planning organizations (MPOs) in the region (Savannah, Hinesville and Brunswick) and from the general public. Meeting notices were sent to a broad spectrum of individuals and organizations from March through September, 2004. Following the September 16, 2004 public meeting, a roster of 22 members was compiled from those who had attended any of the previous meetings.

An enhanced scope of work for the bicycle and pedestrian plan was prepared and discussed with the BPAC on August 19, 2004. A schedule of monthly meetings from August through November was approved. All meetings were held in a central location (Midway).

A public meeting was conducted on September 16, 2004 to discuss bicycle and pedestrian needs, recommendations and implementation strategies. Fifteen individuals from six counties participated in the public meeting.

An existing conditions technical report was submitted and discussed at the September public meeting. The document described the data collection, analysis and coordination tasks underway. Attachments included two pages on existing roadway and path design and a two-part Geographic Information System (GIS) map on existing bicycle and pedestrian facilities.

In advance of the October committee meeting, a working document was distributed that included sections on context and implementation strategy, analysis of bicycle and pedestrian crashes and a summary of the Coastal Georgia Greenway, as recommended in a December 2003 report. Additional GIS maps were produced portraying MPO boundaries and the Coastal Georgia Greenway Alternative¹ by location and facility type.

An assessment of bicycle and pedestrian facility and program needs was prepared and distributed to the BPAC in advance of the November committee meeting. A recommendations matrix was also distributed. At the November meeting, the BPAC reached consensus on recommendations for improving bicycle and pedestrian facilities and programs in the region.

A complete draft plan was prepared and distributed to GDOT and the BPAC on December 31, 2004. The draft plan was presented on the evening of January 20, 2005 at a Public Meeting at the Electric Management Cooperative in Midway. Input from the public meeting and from GDOT was used to revise the plan.

¹ Coastal Georgia Greenway Alternative: Developing Heritage and Ecotourism on the Coast, Jo Hickson, ASLA, December 2003.

Coastal Georgia Regional Bicycle and Pedestrian Plan

Recommendations

The BPAC ranked the Coastal Georgia Greenway as the top priority bicycle facility to be developed in the region. The proposed regional facility connects the three MPOs, rural areas and the adjoining states. The committee supports the designation of much of Highway 17 and portions of Highway 99 as the Coastal Georgia Greenway, and advocates the construction of 4-ft paved shoulders for improved bicycle accommodation. Local governments are encouraged to identify locations where sidewalks or shared use paths may also be developed in the Highway 17 and Highway 99 corridors.

An analysis of roadway characteristics data from GDOT shows that most of the state bicycle routes in Coastal Georgia lack adequate paved shoulders. Implementation of shoulder improvements will benefit motorists and bicyclists alike, improving safety for all roadway users. Priorities should be established for implementation of the shoulder improvements with initial segments implemented on the Highway 17/Altamaha Scenic Byway in Glynn and McIntosh counties and on segments with high traffic volumes and concentration of trip attractors.

The committee believes that the abandoned rail corridor from Kingsland to Riceboro holds promise for rail trail development. They support further analysis by the RDC and local governments including discussions with the landowners and discussions with CSX railroad on possible rail-with-trail development north of Riceboro. The committee also supports similar trail development in other abandoned rail corridors in the region, such as an abandoned east-west rail corridor in Camden County.

Recommendations have been developed for improving GDOT and local public works department policies on roadway design, maintenance and construction to better accommodate bicycles and pedestrians. GDOT and local public works departments should provide accommodations for bicyclists and pedestrians on all roadway projects. This includes new roads, subdivision and city streets and roadway reconstruction projects.

Maps developed as part of this plan show existing and planned bicycle facilities as contained in Chatham, Glynn, Bulloch and Camden transportation plans and in the state's bike route system. Potential additional bike routes have been identified on state highways primarily in rural counties. These routes would connect communities and serve concentrations of public facilities, parks and historic sites, commercial and industrial areas. City and county governments should evaluate the state routes and consider designating them as "bike routes" in a local bicycle and pedestrian plan. If these roads are designated as city or county bike routes, then GDOT will provide paved shoulders or bike lanes as part of any future roadway improvement project.

The Coastal Georgia Regional Bicycle and Pedestrian Plan highlights existing and new programs on bicycle and pedestrian safety education, enforcement and encouragement. Exemplary local programs, such as Safe Kids Savannah and Brunswick's Bicycle Patrol Program, are offered as examples for use by other local governments.

Analysis of crash data shows that over 100 motor vehicle/bicycle crashes occur annually in Coastal Georgia, resulting in six fatalities from 2000 to 2003. About half of these crashes occur at intersections and about 10 percent result from wrong way cycling. There is a need to study detailed crash reports to learn more about how the crashes occurred and what countermeasures can be developed to decrease crash rates.

Coastal Georgia Regional Bicycle and Pedestrian Plan

About 150 motor vehicle/pedestrian crashes occur annually in Coastal Georgia, resulting in 37 fatalities from 2000 to 2003. Nearly 60 percent of these crashes occur when the pedestrian is crossing the road. Countermeasures to address this trend include traffic control devices at marked crosswalks, increased enforcement of speed limits and education of motorists and pedestrians.

The Coastal Georgia RDC recommends that local school districts, city and county governments undertake detailed evaluations of their bicycle and pedestrian facilities and programs. The RDC is available to assist local officials in these analyses. More attention should be placed on biking and walking safety. Programs should be developed to encourage more biking and walking by children and adults. Health officials have identified this as one means to decrease adult and childhood obesity rates, thus reducing health care costs.

The Coastal Georgia RDC is in a position to help local governments improve facilities for biking and walking, provide safety education to motorists, bicyclists, and pedestrians, enforce traffic laws, and encourage greater biking and walking.

Chapter 1

Vision, Goals and Objectives

The Coastal Georgia Regional Development Center (CGRDC) serves 10 counties and 35 cities as shown on map 1A. The CGRDC region includes six coastal counties and four inland counties for a total of 5,110 square miles. The region is bordered by South Carolina on the north and Florida on the south. With over 100 miles of coastline and nearly 562,207 residents, the region is home to spectacular natural resources such as sandy beaches, salt marshes, river estuaries and pine forests. The region includes historic military forts; rice plantations; historic churches; two of the country's first planned cities (Savannah and Darien); and many other cultural and historic resources".

The main transportation thoroughfare is Interstate 95, with an average of approximately 38,000 to 55,000 vehicles daily depending on location. Interstate 95 runs north to south parallel to the coast and intersects Interstate 16, near Savannah. There are many other state and U.S. Highways that serve the region. U.S. Highway 17 is a major highway that runs north to south and connects various cities and towns in the region. The region is also served by a network of railroads radiating from Savannah, Hinesville, Brunswick, and Statesboro.

The CGRDC's region is also home to two United States military bases: Fort Stewart and Naval Submarine Base Kings Bay, . Another large government facility in the CGRDC region is the Federal Law Enforcement Training Center (FLETC), which provides training to the various federal, state, and local agencies.

Most tourism in coastal Georgia is done by automobile. U.S. Highway 17 is extremely scenic and offers tourists an opportunity to stop and enjoy many historic attractions. Tourism has continued to grow in importance, now employing an estimated 27,150 in retail trade and services, supported by a total volume of business approximating \$1.6 billion annually, which is almost one-fifth of the state total.

A detailed examination of the existing land use has been performed as part of the CGRDC regional plan. In order to assess the development trends, the regional projected land use has been prepared, which presents a conceptual future development plan for the region as shown on map 1B. This map has been prepared using existing and future land use information available through the comprehensive plans prepared by local governments in the region. Typically, major roads and infrastructure serve the urban areas, where most existing bicycle and pedestrian travel is concentrated.

The following goals and objectives for the Regional Bicycle and Pedestrian Plan were adapted from those developed by the Bicycle and Pedestrian Advisory Committee (BPAC), over the course of several meetings in the Spring 2004.

Goal I: Increase number and quality of bike lanes, bike paths, and dedicated trails

Objectives:

1. Identify and develop priority bike lane, path, dedicated trails, or paved road shoulder projects in each jurisdiction
2. Identify and develop priority pedestrian (sidewalk) projects in each jurisdiction

Coastal Georgia Regional Bicycle and Pedestrian Plan

Goal II: Increase bicycle and pedestrian safety

Objectives:

1. Identify high accident locations in each jurisdiction
2. Propose specific countermeasures to improve safety at these locations
3. Implement safety measures for all bike routes, bike lanes, paths, trails, and pedestrian facilities.
4. Publish an article on bicycle safety measures implemented in member jurisdictions in the CGRDC publication *Coastal Chart*
5. Institute and publicize an annual regional award to highlight local initiatives for bicycle and pedestrian safety
6. Assess road and path maintenance practices of each jurisdiction and identify improvements

Goal III: Provide bike routes for casual rider, moderate rider, and advanced cyclists

Objectives:

1. Identify bike lane, path and shared roadway facilities for a wide range of cycling abilities
2. Inventory existing and planned bicycle and pedestrian facilities
3. Identify additional potential bicycle routes that provide regional connections

Goal IV: Prepare bicycle and pedestrian plans for each county and city in the region

Objectives:

1. Obtain and review existing bicycle and pedestrian plans prepared by counties, cities and metropolitan planning organizations (MPOs) in the region
2. Assist counties and cities in the preparation and update of bicycle and pedestrian plans
3. Help counties, cities and school districts develop and improve bicycle and pedestrian programs, including engineering, education, encouragement and enforcement activities (4 e's)

Goal V: Research and educate the public on Georgia laws pertaining to bicycle/ pedestrian safety, rights and responsibilities

Objectives:

1. Review and summarize existing bicycle and pedestrian related laws in the regional bicycle and pedestrian plan
2. Sponsor workshops with assistance of the BPAC, School Districts, FLETC (Federal Law Enforcement Training Center), and Community Outreach Police Officers to distribute information and educate the public regarding bicycle and pedestrian safety, rights and responsibilities

Coastal Georgia Regional Bicycle and Pedestrian Plan

Goal VI: Establish bicycle and pedestrian retrofit strategy for existing roadways and intersections

Objectives:

1. Work with local governments to identify locations of high pedestrian and bicycle use
2. Prioritize and develop plans for bicycle and pedestrian retrofit projects where needed
3. Work with GDOT and local governments to improve policies for providing bicycle and pedestrian accommodations on all roadway projects

Goal VII: Establish ongoing public education on bicycle and pedestrian transportation and safety

Objectives:

1. Assist school districts in preparing in identifying bicycle and pedestrian improvements within 1 to 1.5-mile radius of each school campus in the region. These can be prepared with the assistance of parent- teacher organizations, youth advisory councils, and civic groups
2. Meet regularly with police departments, school administrators, health departments and bicycle and pedestrian advocates to improve bicycling and walking conditions and safety in the region
3. Work with local officials and citizens to encourage more biking and walking in the region

Chapter 2

Existing Bicycle and Pedestrian Plans, Programs and Use

This section summarizes data on existing bicycle and pedestrian plans including county, metropolitan areas and state plans. Existing school, police and health department initiatives as well as current rates of bicycling and walking to work are also discussed.

County and MPO Plans

Metropolitan planning organizations (MPOs) conduct transportation planning for their areas as part of the federal transportation planning process. Three MPOs lie within the Coastal Georgia region. The MPO jurisdictions are shown on the map 2. The status of the Long Range Transportation Plans (LRTPs) and Bicycle and Pedestrian Elements in each MPO are summarized in Table 1.

Table 1
Status of MPO Transportation Plans and Bicycle/Pedestrian Elements

Metropolitan Planning Organization	Long Range Plan	Bike/Ped Element
Brunswick Area	Yes	No
Chatham County – Savannah	Yes	Yes
Hinesville Area	No	No

Three county or metropolitan area plans have been prepared dealing exclusively with bicycle and facilities. These are listed below and in Table 2.

1. Bulloch County Greenways System Master Plan
2. Chatham County Bikeway Plan
3. Glynn County Bicycle and Pedestrian Study

Table 2
Existing County or MPO Bicycle and Pedestrian Plans in Coastal Georgia

Jurisdiction	Name	Year	Preparer	GIS Data
Bullock County	Greenways System Master Plan	2003	GSU	Yes
Chatham County	Bikeway Plan	2000	MPO	Yes
Glynn County	Bicycle and Pedestrian Program Study	1994	PBS&J	No
Camden County	Comprehensive Transportation Plan	2004	JJ&G	No

The first plan was prepared by Georgia Southern University (GSU) for Bulloch County. Even though Bulloch County has not adopted the plan, it is implementing some of the projects recommended in the plan.

Coastal Georgia Regional Bicycle and Pedestrian Plan

The Chatham County Bikeway Plan was prepared and adopted by the Chatham County – Savannah Metropolitan Planning Organization (MPO) and is the most comprehensive of the local government bicycle and pedestrian plans in the coastal region.

The third document is a study prepared for Glynn County by a consultant, PBS&J. While the study is over 10 years old and was not adopted by the local governments, the recommended bike routes and pedestrian facilities are recognized as such by the Brunswick – Glynn County MPO.

Jordan, Jones & Goulding, Inc. (JJG) prepared the Camden County Comprehensive Transportation Plan, which addresses bicycle and pedestrian transportation policies and programs in an appendix. The recommended bicycle and pedestrian projects in this plan are primarily those included in the *Coastal Georgia Greenway Alternative*.

Coastal Georgia Greenway

The *Coastal Georgia Greenway Alternative* report was completed in December 2003. The report was prepared by Jo Hickson, ASLA, as an approach for that portion of the ‘East Coast Greenway’ in Georgia. The East Coast Greenway is a private initiative promoting a largely off-road bicycle and pedestrian facility linking Calais, Maine with Key West, Florida. The Coastal Georgia Greenway Alternative proposal is analyzed in Chapter 6.

Statewide Bike Route Network

In August 1995 the State Transportation Board adopted seven goals to guide the development and implementation of a statewide bicycle and pedestrian system:

1. Promote bicycling and walking as mobility options in urban and rural areas
2. Develop a transportation network of primary bicycle routes throughout the state to provide connectivity for intrastate and interstate bicycle travel
3. Promote the establishment of US numbered bicycle routes in Georgia as part of a national network of bicycle routes
4. Encourage economic development opportunities that enhance bicycle and pedestrian mobility
5. Promote non-motorized transportation as a means of congestion mitigation
6. Promote non-motorized transportation as an environmentally friendly means of mobility
7. Promote connectivity of non-motorized facilities with other modes of transportation

The DOT board approved a Statewide Route Network document on August 21, 1997. It established a network of 14 state bicycle routes based on input from a statewide advisory committee who evaluated each proposed corridor and defined the routes. State bicycle routes in the coastal region are:

- Bike Route 10 called ‘Southern Crossing’ runs west from Jekyll Island to Waynesville, Atkinson and Nahunta in adjoining Brantley County.
- Bike Route 35 called ‘March to the Sea’ runs west from downtown Savannah. It joins Bike Route 40 near Bloomingdale. The next stand-alone section of Bike Route 35 runs northwest from Denmark through Statesboro in Bulloch County to Rocky Ford in Screven County and on to Millen in adjoining Jenkins County.

Coastal Georgia Regional Bicycle and Pedestrian Plan

- Bike Route 40 called ‘TransGeorgia’ runs northwest from the southern Bulloch County adjoining Candler County.
- Bike Route 85 called ‘Savannah River Run’ runs in a north from Bike Route 95 in Springfield in Effingham County through Shawnee, on through Newington and Sylvania in Screven County before intersecting Bike Route 35 in Jenkins.
- Bike Route 95 called ‘Coastal’ runs north from the Georgia – Florida state line in Camden County to the Georgia – South Carolina state line in Effingham County. Georgia Bike Route 95 connects to the Florida Coastal Bike Route on US Highway 17 and continues north on Highway 17 and roughly parallels Interstate 95 until it turns onto SR 119 in Effingham County, which it follows into South Carolina on their “Coastal Route”.

The State Bike Routes in the CGRDC region are included on maps presented in Chapter 3. An analysis of roadway characteristics on state bike routes is provided the in Chapter 5.

Police Bicycle Patrol Programs in the Region

The staff contacted law-enforcement agencies in the region to identify those that have bicycle patrol programs.. The following describes existing bicycle patrol programs conducted by law-enforcement agencies in the coastal region. An online research was conducted to review traffic laws pertaining to bicyclists and pedestrians in Georgia. These are provided in Appendix C

Brunswick Police Department- Brunswick’s bicycle patrol team was first established in the mid 1990s. It currently has two permanently assigned officers and one part-time supervisor. The officers receive in-house training and may receive additional training as needed through courses at the law enforcement training center. The bikes are utilized on every shift and patrol is constituted as city-wide and year-round, with a strong emphasis on the business districts, banking areas, housing projects, as well as all other areas facing potential crime activity. The program is very productive, according to the officers. The bicycles are useful in quick response situations, and with the increased field of view, the officers assume a more defined observer/controller role. The bicycles allow the officers to better blend in with the surroundings while on patrol, and thus the ability to infiltrate criminal activity is increased. According to the supervisor, Sgt. Kevin Jones, the program has been well received by the public. The general public is more apt to approach and converse with a bicycle-mounted officer as his/her presence is less intimidating than being in a patrol vehicle. Another benefit concerning the public relations aspect is the ability of the officers to perform more walk throughs of businesses.

Hinesville Police Department- This program was created around 1995, and bicycle patrol is focused on high-crime areas throughout the city. The assigned officers are involved in a rotation-based system to provide adequate rest. This limits them to only two 8-hour shifts per week on bicycle patrol. Hinesville’s bicycle patrol program begins at the end of April and ends in December. When up to full strength, six officers are assigned bicycles, but there are only three currently assigned to bike duty.

Savannah Chatham Metropolitan Police Department (SCMPD)- This is the largest law-enforcement agency in our region. The SCMP currently serves six precincts throughout Savannah. When there are enough officers available, the individual precincts may designate a specialized unit called the Crime Suppression Unit (CSU), with the only exception being at the Downtown Precinct, which is known as the Downtown Show Officers Unit. Bicycle patrol is coordinated through these specialized units. Officers actively patrol on foot as well, especially in the downtown

area. All officers are required to be certified on the bicycles, and they follow guidelines set forth in the SCMPD training manual. The program is not being utilized to its full potential; however, as there is currently no organized bicycle patrol program. The bikes are still used, but not on a daily basis due to a shortage of bicycle-certified officers. An absence of the training to certify new personnel also adds to the current status of the program. It was reported that the program proved to be very effective in the past. Some of the bicycles and other equipment have been purchased with funds set aside for law-enforcement use, but more interesting is that others were donated by various community organizations and area businesses.

Police bicycle programs can provide a viable supplement to a community's law-enforcement needs. The officers have the advantage to sneak up on crimes in progress and they are more likely to be approached by the general public. The officers will be faced with more unorthodox riding conditions than average riders but safety is still the number one issue.

Police Bicycle Training Program (PBTP) at Federal Law Enforcement Training Center

The Police Bicycle Training Program (PBTP) was established in 1999 to provide training to various law enforcement officers throughout the nation. The training course was eight days long and offered three times a year. A maximum of 24 students enrolled in each class. Recently, the program has been redesigned to be a five-day course by reducing the number of students to 12 allowed in each class.

The training classes are usually offered in April, May, and October each year, and provide skills in the following areas: how to ride slow, adjusting bike, injury prevention, maintenance of bike, and long rides practice in the field.

FLETC has designed a brochure entitled "Bicycle Safety for Motorist and Cyclist" and is provided to the trainees. The brochure includes tips for motorists and cyclists. The most important tips for motorists include staying alert, observing a cyclist ahead, adjusting speed, not honking when passing a cyclist, using extra caution at intersections, and avoiding startling at cyclist. The cyclist tips include wearing safety equipment, using a designated bike path if available, riding in a single file if riding in a group, being visible, knowing your road signs and obeying them, using hand signals, using bike mirrors, considering pulling off the roadway if vehicles are backed up behind you, always riding with the traffic, moving away from the right edge during roadway hazard and narrow lane, using proper lane positioning, and using alternate means of travel during rain and foggy conditions.

U.S. Department of Homeland Security
**Federal Law Enforcement
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Bicycle Safety for Motorist and Cyclist



The Habit Starts Here



Learn the Rules

School and Health Department Initiatives

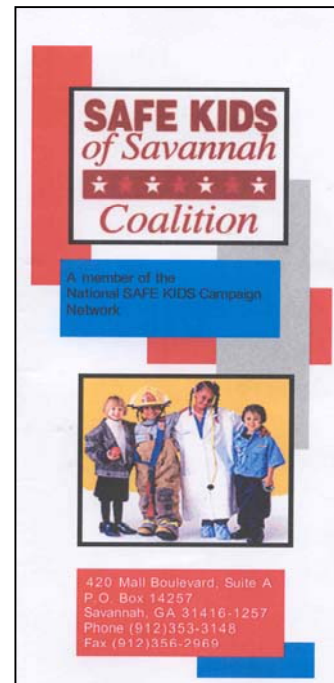
Schools can play a major role in promoting bicycle and pedestrian safety for students and parents. Health departments, though concerned with safety, mainly focus on improving the overall general health of the community population. Increased interaction with the schools and health departments will be necessary in planning for the future of safety and health concerns in the region. This section provides an overview of different programs available in the region.

Camden County Elementary Schools

Camden County Elementary Schools provide lessons on safety through their health and physical education classes. Their school-based curriculum consists of the *Risk Watch* program, the first comprehensive injury prevention program available for use in schools, as developed by the National Fire Protection Association. *Risk Watch* provides teachers, parents, and safety advocates the tools they need to teach children about safety concerns. It is divided into five age-appropriate teaching modules, and an entire section of the curriculum is devoted to bicycle and pedestrian safety. Also, preschoolers are provided with bicycle safety lessons from the local police. Adolescent level bicyclist and pedestrian safety programs should be introduced across the region.

Chatham County's Safe Kids of Savannah Coalition

The Chatham County Health Department administers the Safe Kids of Savannah Coalition, which includes aspects on bicycling and walking. This award-winning program follows the guidelines of the *National Safe Kids Campaign Network*. The Safe Kids of Savannah Coalition consists of many volunteers including law enforcement officers, firefighters and paramedics, medical and health professionals, educators, parents, and others. The coalition is dedicated to reducing the occurrence of unintentional childhood injuries, the number one killer of children ages 14 and under in the U.S., Georgia, and Chatham County. Accomplishments include the distribution of safety equipment, such as bike helmets to needy children, and safety events, including annual bicycle rodeos, such as one held on April 30, 2005. They provide safety workshops for elementary school students, as well as parents and other interested parties.



Obesity and Physical Activity

Local health professionals involved in the Chronic Disease Prevention Initiative are considering programs to promote biking and walking facilities and programs as a means to reduce child and adult obesity. Obesity is defined as body mass index (BMI) of 30.0 or more and uses the formula: $BMI = \text{weight in kg} / \text{height m}^2$. Obesity has been identified as a risk factor for many serious health conditions. Weight loss can reduce the risk of these and may be achieved by increasing the daily physical activity and reducing calories.

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There are 19 public health districts in Georgia, which record data for numerous health conditions. The following tables display recent information regarding obesity and physical activity in the health districts containing the ten counties located within our region, as well as for the State of Georgia.

Table 3
Percentages of Obese Adults in Georgia, By Age

Georgia Public Health District	Age Group			Average Total
	18-44	45-64	65+	
District 6, East Central- <i>Includes Screven County</i> .	27.1%	26.6%	21.0%	24.9%
District 9-1, East- <i>Chatham, Effingham Counties</i>	15.4%	24.3%	12.7%	17.5%
District 9-2, Southeast- <i>Includes Bulloch County</i> .	26.9%	33.0%	28.1%	29.3%
District 9-3, Coastal- <i>Bryan, Camden, Glynn, Liberty, Long, McIntosh Counties</i>	22.6%	26.4%	25.8%	24.9%
State of Georgia	20.4%	26.8%	20.6%	22.6%

Source: Georgia Behavioral Risk Factor Surveillance System, 2002 Report.

Table 3 displays the obesity rates for three different adult age groups residing within each health district and also lists the rates for the whole state of Georgia. The total column lists the percentage of adults within each district classified as obese and is represented as an average of the three age groups. District 9-2, which includes Bulloch County, shows that it contains the highest percentage (29.3%) of obese adults as compared to the District 6 and District 9-3 (24.9%), District 9-1 (17.5%), and the State of Georgia (22.6%). The age group 45-64 years old represents the highest obesity rate (33%) in District 9-1 as compared to the other districts. This is also significantly higher than the state's adult average total.

Table 4
Adults with No Leisure Time Physical Activity, By Age

Georgia Public Health District	Age Group			Average Total
	18-44	45-64	65+	
District 6, East Central- <i>Includes Screven County</i> .	26.5%	36.2%	36.7%	33.1%
District 9-1, East- <i>Chatham, Effingham Counties</i>	25.3%	30.6%	36.5%	30.8%
District 9-2, Southeast- <i>Includes Bulloch County</i>	28.7%	39.3%	42.9%	37.0%
District 9-3, Coastal- <i>Bryan, Camden, Glynn, Liberty, Long, McIntosh Counties</i>	17.9%	29.1%	33.7%	26.9%
State of Georgia	22.4%	29.9%	36.7%	29.7%

Source: Georgia Behavioral Risk Factor Surveillance System, 2002 Report.

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Table 4 displays rates for three different adult age groups experiencing an absence of leisure time physical activity. District 9-2, contains the least active adults (37%), and is much higher than the state rate of 29.7%. Ages 65+ in this district are also the least active, with 42.9% claiming no leisure time physical activity. It is recommended that individuals take part in at least thirty minutes of moderate-intensity activity on a daily basis. District 9-3 (Coastal) is below the state's rates for all of the three age groups. Based on these numbers, this district contains some of the most active adults in our region.

Review of Zoning Ordinances/Subdivision Regulations in the Coastal Georgia Region

In order to assess provisions for bicycle and pedestrian facilities, the RDC reviewed the zoning ordinances and subdivision regulations for the ten counties in our region as shown in the matrix below.

Provision of Bicycle and Pedestrian Facilities in Zoning Ordinances/Subdivision Regulations

County Name	Provision of Bicycle/Pedestrian Facilities		Comments
	Zoning Ordinance (Yes/No)	Subdivision Regs. (Yes/No)	
Bryan	Yes	Yes	Zoning requires pedestrian access to be provided within Planned Unit Development Districts. Adjacent developments within the PUD will be connected via pedestrian paths and/or sidewalks, which shall be no less than five feet wide. Subdivision regulations require pedestrian ways for all subdivisions with 10 or more lots, and the proposed locations and widths of pedestrian ways must be shown on preliminary plats.
Bulloch	*	*	Under revision by County Commission.
Camden	No	No	No provisions identified in either document.
Chatham	Yes	Yes	Town center overlay districts must provide for pedestrian and bicycle access to adjacent residential and commercial areas if the facility is used by the general public. Incentive-based development standards require that a minimum of five percent of total site area be dedicated to bicycle and pedestrian use in town center overlay districts. Subdivision regulations state that sidewalks shall be provided along both sides of all streets within new subdivisions, and along the sides of existing streets that abut all new subdivisions. The sub-divider shall install sidewalks and/or pedestrian paths/modified trail systems in such a manner as to promote and insure the safety and welfare of all users.
Effingham	No	No	No provisions identified in either document.
Glynn	No	No	No provisions identified in either document.
Liberty	No	No	No provisions identified in either document.
Long	No	Yes	Sidewalks are encouraged within subdivisions, but not required.
McIntosh	No	Yes	Not stated as mandatory, but pedestrian-ways may be required in subdivisions if deemed essential.
Screven	No	No	No provisions identified in either document.

Source: Zoning and Subdivision Regulations, Compiled by the CGRDC, 2005

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The matrix clearly shows that only four out of the ten counties contain provisions for facilities pertaining to bicycle and pedestrian use. Furthermore, Bryan and Chatham counties are the only ones that contain reference to such facilities in both of their zoning ordinances and subdivision regulations.



Bicycling and Walking to Work

There are no statistics on bicycle and pedestrian trip rates and use in coastal Georgia other than the so-called Journey to Work data compiled as part of the U. S. Census 2000.

According to the census 2000, almost 77 percent of commuters drive alone to work in coastal Georgia as shown in Table 5. Another 14 percent carpool. Walking is the third most common means of transportation to work with 3 percent of total commute trips. Another 1.5 percent use public transportation, and ½ percent bicycle to work.

Also, the largest numbers of persons walking to work were noted in Chatham County (about 3000), Liberty County (about 1850) and Camden County (about 1000).

Table 5
Means of Transportation to Work in Coastal Georgia Region

Counties	Mode of Transportation																TOTAL
	Drove alone	%	Carpooled	%	Public Transportation	%	Motorcycle	%	Bicycle	%	Walked	%	Other means	%	Worked at home	%	
Bryan	9,092	82.7	1,372	12.5	31	0.3	8	0.1	4	0.0	81	0.7	118	1.1	290	2.6	10,996
Bulloch	18,980	78.3	3,501	14.4	95	0.4	21	0.1	137	0.6	698	2.9	283	1.2	533	2.2	24,248
Camden	16,191	76.9	3,003	14.3	80	0.4	59	0.3	117	0.6	996	4.7	319	1.5	301	1.4	21,066
Chatham	80,088	76.4	14,099	13.4	3,317	3.2	170	0.2	725	0.7	2,989	2.9	828	0.8	2,637	2.5	104,853
Effingham	14,363	83.5	2,425	14.1	34	0.2	3	0.0	0	0.0	63	0.4	102	0.6	221	1.3	17,211
Glynn	25,149	80.0	4,224	13.4	145	0.5	61	0.2	236	0.8	559	1.8	254	0.8	797	2.5	31,425
Liberty	20,717	72.1	5,134	17.9	96	0.3	46	0.2	113	0.4	1,851	6.4	349	1.2	437	1.5	28,743
Long	3,275	74.3	866	19.6	37	0.8	4	0.1	0	0.0	63	1.4	73	1.7	91	2.1	4,409
McIntosh	3,421	78.7	651	15.0	12	0.3	7	0.2	18	0.4	94	2.2	37	0.9	107	2.5	4,347
Screven	4,507	76.8	1,005	17.1	32	0.5	0	0.0	0	0.0	124	2.1	25	0.4	172	2.9	5,865
Total	195,783	77.3	36,280	14.3	3,879	1.5	379	0.1	1,350	0.5	7,518	3.0	2,388	0.9	5,586	2.2	253,163

Source: U.S. Census 2000

Chapter 3

Existing and Planned Bicycle and Pedestrian Facilities

Existing and planned bicycle and pedestrian facilities consist of two sets of Geographic Information Systems (GIS) data:

1. State bike routes GIS shapefile obtained from the Office of Transportation Data, Georgia Department of Transportation (GDOT) in spring of 2004
2. GIS shapefiles of existing and planned bicycle facilities prepared by local governments as part of their local bicycle and pedestrian plans

Where GIS data were not available, the Coastal Georgia RDC staff created new coverages by digitizing data and/or using Global Positioning System (GPS) data collected under separate GIS contracts with GDOT.

The GIS data developed for this plan were used to produce a two-part map showing existing and planned bicycle and pedestrian facilities on map 3A and map 3B. The existing facilities include five state bike routes in the CGRDC region as listed below. The majority of these roads have limited paved shoulders (2 feet wide or less) and many have rumble strips in the paved shoulders.

- State Bike Route 10, also known as “Southern Crossings”
- State Bike Route 35, also known as “March to the Sea”
- State Bike Route 40, also known as “TransGeorgia”
- State Bike Route 85, also known as “Savannah River Run”
- State Bike Route 95, also known as “Coastal”

These state bike routes are also described in the previous section. Table 6 shows the total miles for each state bike route in the coastal region.

Table 6
State Bike Route Mileage

State Bike Route	Total Miles in Coastal Region*
10-Southern Crossing	24.9
35-March to the Sea	83.1
40-TransGeorgia	64.3
85-Savannah River Run	88
95-Coastal	168.6

*includes overlapping mileage

Source: Georgia State Bicycle and Pedestrian Plan: Statewide Route Network, 1997

As mentioned in earlier section, Chatham, Glynn and Bulloch counties have local bicycle, pedestrian or greenway plans or studies. These local bike and pedestrian plans have been incorporated into the Coastal Georgia Regional Bicycle and Pedestrian Plan. Glynn County has a 10-year old Bicycle and Pedestrian Study conducted by PBS&J. The County advised us to use this study as their local bike and pedestrian plan, and they added another planned bike route. Both existing and planned facilities from each of the three local plans have been shown on the regional

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map along with the state bike routes. Local segments of the Coastal Georgia Greenway have also been included. Detailed maps for each of the three local plans have been prepared as shown on maps 3C, 3D, and 3E. In the regional coverage, the different bikeway categories from each local plan have been collapsed into following three bikeway types so that a same standard can be applied across the region. The definitions are from the *Guide for the Development of Bicycle Facilities* published by the American Association of State Highway and Transportation Officials (AASHTO) in 1999.

- ***Bike lanes***, where bike lane is defined as “a portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists”
- ***Bike route***, where bike route is defined as “a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers, with or without specific bicycle route numbers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways”
- ***Shared use path***, where shared use path is defined as “a bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users”

The existing bicycle lanes, bicycle routes, and shared use paths are shown in solid lines while planned bicycle lanes, bicycle routes, and shared use paths are shown in dashed lines. In addition, the existing trails in the region are shown separately on the map. These are unpaved paths predominately used for walking.

Chapter 4

Analysis of Bicycle and Pedestrian Crashes

Motor Vehicle/Bicycle Crashes

Data on motor vehicle/bicycle crashes in the ten counties of the Coastal Georgia Regional Development Center's region were obtained from Georgia Department of Transportation (GDOT) for the years 2000 to 2003 as shown in the Table 7.

Table 7
Motor Vehicle/Bicycle Crashes (2000- 2003)

County Name	Annual Crashes					Total Fatalities	Total Injuries	Number of Crashes		
	Total	2000	2001	2002	2003			City Street	County Road	State Route
Bryan	14	5	2	2	5	1	13	4	3	7
Bulloch	23	6	4	7	6	0	16	5	12	6
Camden	11	3	3	3	2	1	9	6	2	3
Chatham	243	56	58	69	60	2	189	179	18	46
Effingham	15	1	4	4	6	2	13	0	12	3
Glynn	64	22	19	14	9	0	59	18	36	10
Liberty	31	10	6	9	6	0	18	13	2	16
Long	0	0	0	0	0	0	0	0	0	0
McIntosh	4	1		2	1	0	5	2	1	1
Screven	0	0	0	0	0	0	0	0	0	0
Total	405	104	96	110	95	6	322	227	86	92

Source: Georgia Department of Transportation, 2004

Most of the bicycle crashes took place in Chatham (60%), Glynn, (16%), Liberty (8%), and Bulloch (6%) counties. The concentration of these crashes is shown on map 4A. There were approximately two fatalities per year resulting from motor vehicle/bicycle crashes. Most of these crashes occurred on the city streets (227) with fewer numbers on state routes and county roads.

Bicycle Crashes by Manner of Collision

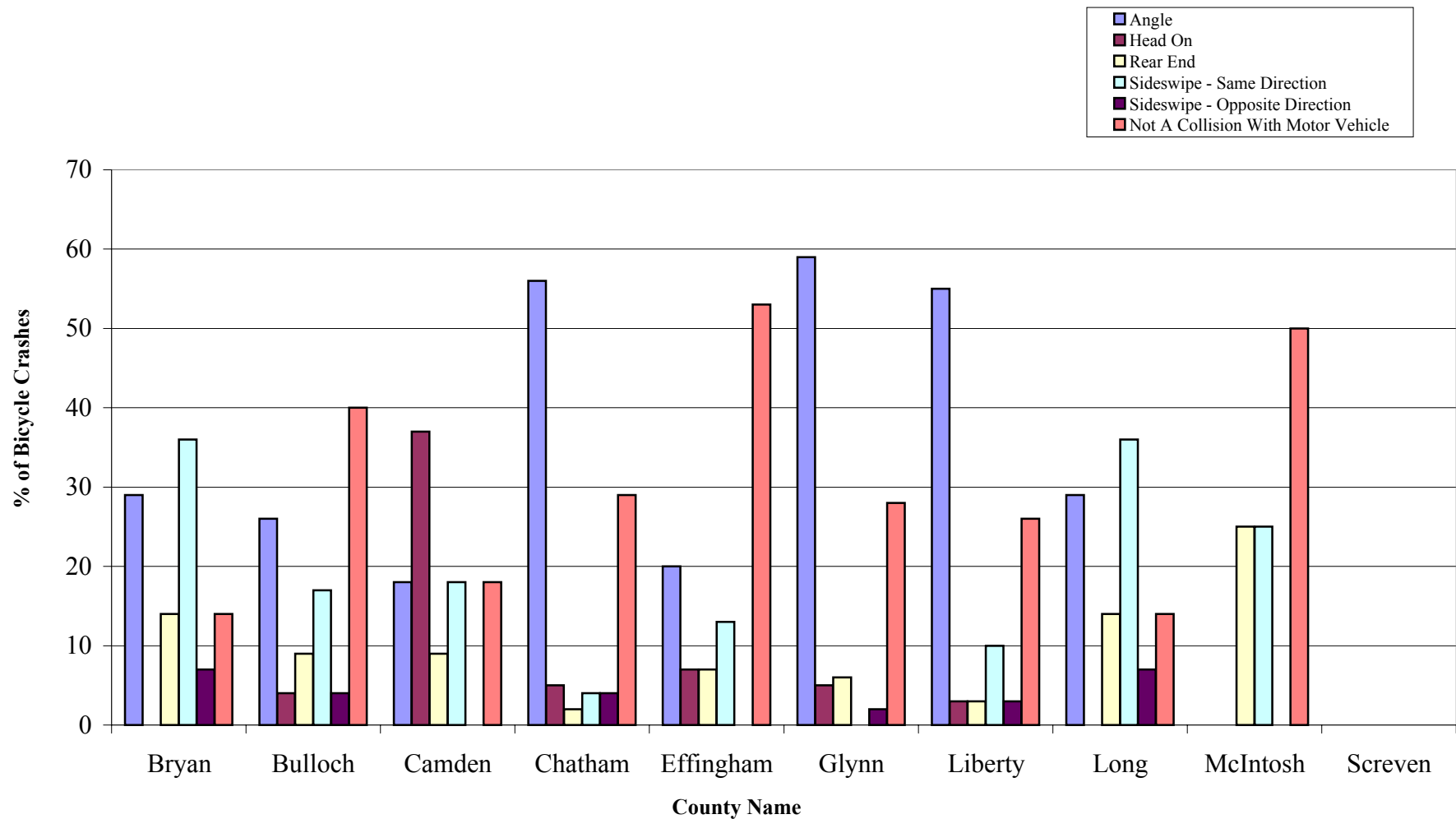
Table 8 and the graph that follows show that about 50% of motor vehicle/bicycle crashes in the coastal region are angle crashes. These most commonly occur at roadway or driveway intersections. More detailed study of police accident reports should be conducted to identify more precisely the actions by bicyclists and/or motorists prior to the crash. This analysis will be useful in developing countermeasures. Another 9% of crashes potentially involved wrong way cycling (head on and sideswipe-opposite direction crashes). Camden County has the highest rate of the head on crashes. Wrong way bicycling is common in Coastal Georgia. Education efforts should be increased to eliminate or lessen this highly unsafe practice.

Table 8
Bicycle Crashes by Manner of Collision (2000 - 2003)

Manner of Collision	Bryan		Bulloch		Camden		Chatham		Effingham		Glynn		Liberty		Long		McIntosh		Screven		Total	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Angle	4	29	6	26	2	18	135	56	3	20	38	59	17	55	0	0	0	0	0	0	205	51
Head On	0	0	1	4	4	37	13	5	1	7	3	5	1	3	0	0	0	0	0	0	23	6
Rear End	2	14	2	9	1	9	5	2	1	7	4	6	1	3	0	0	1	25	0	0	17	4
Sideswipe - Same Direction	5	36	4	17	2	18	11	4	2	13	0	0	3	10	0	0	1	25	0	0	28	7
Sideswipe - Opposite Direction	1	7	1	4	0	0	9	4	0	0	1	2	1	3	0	0	0	0	0	0	13	3
Not a Collision w/ Motor Vehicle	2	14	9	40	2	18	70	29	8	53	18	28	8	26	0	0	2	50	0	0	119	29
Total	14	100	23	100	11	100	243	100	15	100	64	100	31	100	0	0	4	100	0	0	405	100

Source: Office of Transportation Data, GDOT, 2004

Bicycle Crashes By Manner of Collision (2000 - 2003)



Source: Office of Transportation Data, Georgia Department of Transportation, 2004

Motor Vehicle/Pedestrian Crashes

Data on motor vehicle/pedestrian crashes were also obtained from the Georgia Department of Transportation (GDOT) for the years 2000 to 2003 as shown in the Table 9 below.

Table 9
Motor Vehicle/Pedestrian Crashes (2000 - 2003)

County Name	Annual Crashes					Total Fatalities	Total Injuries	Number of Crashes		
	Total	2000	2001	2002	2003			City Street	County Road	State Route
Bryan	11	4	3	3	1	2	10	2	5	4
Bulloch	37	14	7	8	8	1	35	13	18	6
Camden	20	1	8	5	6	4	16	7	1	12
Chatham	424	109	122	107	86	21	377	266	28	130
Effingham	16	5	4	2	5	1	14		9	7
Glynn	50	14	12	16	8	5	52	12	19	19
Liberty	28	7	4	10	7	2	26	11	1	16
Long	1		0	1	0	0	1	0	0	1
McIntosh	7	1	0	5	1	0	7	1	3	3
Screven	4	0	1	2	1	1	4		1	3
Total	598	155	161	159	123	37	542	312	85	201

Source: Georgia Department of Transportation, 2004

The urban areas of Chatham, Glynn, Bulloch, and Liberty counties represents 71%, 8%, 6%, and 5% of regional pedestrian crashes respectively. The concentration of pedestrian crashes is shown on map 4B. About 10 pedestrians died every year in the region from crashes with motor vehicles. Most of the motor vehicle/pedestrian crashes occurred on city streets (312) and state routes (201).

Pedestrian Crashes by Pedestrian Maneuver

Table 10 shows that 57% of motor vehicle/pedestrian crashes in the coastal region occur when the pedestrian is crossing the road. Countermeasures to address this trend include traffic control devices at marked crosswalks, increased enforcement of speed limits, and education of motorists and pedestrians. Twelve (12) percent of pedestrian crashes occurred when pedestrians were walking along the road, and another 12 percent occurred when the pedestrian was playing or standing in the road. Better facilities for pedestrians on area roads and streets could decrease the incidence of pedestrian injuries while walking along the roads and streets.

Table 10.
Pedestrian Crashes by Pedestrian Maneuver (2000 - 2003)

Maneuver Type	Bryan		Bulloch		Camden		Chatham		Effingham		Glynn		Liberty		Long		McIntosh		Screven		Total	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Crossing, Not at Crosswalk	5	50.0	13	36.1	7	38.9	197	47.7	2	12.5	13	28.3	13	46.4	0	0.0	2	28.6	0	0.0	252	43.5
Crossing at Crosswalk	0	0.0	7	19.4	0	0.0	64	15.5	0	0.0	3	6.5	4	14.3	0	0.0	0	0.0	0	0.0	78	13.5
Walking with Traffic	0	0.0	8	22.2	4	22.2	22	5.3	4	25.0	5	10.9	1	3.6	0	0.0	0	0.0	0	0.0	44	7.6
Walking Against Traffic	1	10.0	2	5.6	1	5.6	14	3.4	3	18.8	1	2.2	2	7.1	1	100.0	0	0.0	0	0.0	25	4.3
Pushing or Working on Vehicle	0	0.0	0	0.0	0	0.0	4	1.0	0	0.0	1	2.2	0	0.0	0	0.0	2	28.6	0	0.0	7	1.2
Other Working on Road	1	10.0	1	2.8	0	0.0	5	1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	1.2
Playing in Roadway	0	0.0	0	0.0	0	0.0	22	5.3	0	0.0	3	6.5	2	7.1	0	0.0	0	0.0	0	0.0	27	4.7
Standing in Roadway	1	10.0	1	2.8	1	5.6	28	6.8	0	0.0	7	15.2	2	7.1	0	0.0	1	14.3	1	25.0	42	7.3
Off Roadway	0	0.0	2	5.6	2	11.1	8	1.9	1	6.3	3	6.5	0	0.0	0	0.0	1	14.3	1	25.0	18	3.1
Other	2	20.0	2	5.6	3	16.7	49	11.9	6	37.5	10	21.7	4	14.3	0	0.0	1	14.3	2	50.0	79	13.6
Total	10	100	36	0	18	0	413	100	16	100	46	100	28	100	1	100	7	100	4	100	579	100

Source: Office of Transportation Data, GDOT, 2004

Chapter 5

Analysis of State Bicycle Routes

State Bike Routes comprise a major portion of the regional bicycle network in Coastal Georgia. RDC staff conducted field review and measurements at select locations on the five State Bike Routes in the CGRDC region. For the most part, these routes are moderate to high speed highways with little or no paved roadway shoulders.

Roadway Characteristics Data

In addition to field review of roadway conditions, the Coastal Georgia RDC obtained two roadway datasets from the Office of Transportation Data, Georgia Department of Transportation (GDOT) in fall 2004:

1. Roadway Characteristics (RC) data file for which the last inventory was conducted in the year 2000.
2. The 'route' road network shapefile in 'polylineM' file format for each county in the region.

The RC data was in a database file format, which contained all the road records for ten counties in the region. These road records are assigned a particular number by GDOT called the RC number, and the field in which these numbers are assigned is called the "RC link". The records in the database are also identified by beginning and ending mile point.

Methodology

The road records in the RC database file did not have a one-to-one relationship with the "route" road network shapefile. Therefore, it was not possible to simply join the records in the RC data file and the route road network shapefile. A technique called 'route display events' in ArcGIS 9.0 was used to display the roadway characteristics information based on the 'begins measure' and 'ends measure' of each mile point in the RC database file. The desired shapefile allowed viewing roadway characteristics information for various road segments in the region. Some segments of roads did not join properly using the automated process. Therefore, some editing was performed to develop continuity in the road network file.

From this regional road network file, the data for state bike routes were queried to create a new shapefile, which contained only state bike routes. In the attribute table of this shapefile, new field names for left and right shoulder widths and their types were created containing the associated information. In addition, the following fields were also created in the attribute table:

1. Description for right shoulder width for divided roads (DSHL_RDESC);
2. Description for right shoulder width for undivided roads (UD_SHLRDES);
3. Shoulder width (RDC_SHLWDT).

In the attribute table, field #1 and #2 as listed above were populated with descriptions of finished and unfinished shoulders for divided and undivided roads. The following shoulder type (codes) were used to define finished and unfinished shoulders:

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Where;

G	= Grass or Sod
S	= Gravel or Stone
F	= Bituminous Surface Treatment (Low)
I	= Bituminous Concrete. (High)
J	= Portland Cement (High)
K/C	= Curb and Gutter (Width of the gutter is not coded. Always code 00C)
N	= No Identifiable Shoulder or Curb. All of the roadbed used as Roadway (Soil or Gravel Road).
D	= Gutter (Only)
O	= Bituminous Concrete (High) with curb and gutter
P	= Bituminous Surface treatment (Low) with curb and gutter

The finished shoulder consists of shoulder types I, J, K, C, and O. While unfinished shoulder includes G, S, F, N, D, and P shoulder types.

Field # 3 was populated using the right shoulder widths of divided and undivided roads for finished shoulders. A zero shoulder width is assigned to both divided and undivided roads where roads have no paved shoulder even though the road may have unfinished (unpaved) shoulder.

Results

The analysis of the finished shoulder widths is classified into four categories based on the (RDC_SHLWDT) attribute field as shown in the map 5A and 5B. The maps show that most of the state bike routes 10, 35, 40, 85, and 95 have zero width shoulders. Exceptions include short segments of 3 to 4 foot shoulders on Highway 17 in Glynn and Bryan counties and on Highway 21 in Effingham County.

The analysis reveals that the GDOT roadway characteristics data may under-report the paved shoulder conditions. For example field review and tape measurements of many locations on Highway 17 show shoulders 1 to 2 ft wide rather than zero. Further assessment of roadway shoulder widths on state bike routes is warranted to determine the extent of improvements needed to better accommodate bicycles and other road users. Other roadway characteristics including speed and traffic volumes can be used to determine priority locations for improvements.



Typical conditions on Highway 17 (State Bike Route 95) are 12-ft travel lanes and 2-ft shoulders. Additional photographs are contained in Appendix D.

Chapter 6

Analysis of Coastal Georgia Greenway Proposal

The *Coastal Georgia Greenway Alternative* report was completed in December 2003. It was prepared by Jo Hickson, ASLA working with the Coastal Georgia Greenway Steering Committee. The proposed Coastal Georgia Greenway (CGG) lies within Bryan, Camden, Chatham, Glynn, Liberty, and McIntosh counties. All six counties are within the area served by the Coastal Georgia Regional Development Center.

The CGG proposal calls for a 152 mile long facility through coastal Georgia connecting to the East Coast Greenway in South Carolina and Florida. The East Coast Greenway is a proposed continuous bicycle and pedestrian facility from Calais, Maine to Key West, Florida.

The Coastal Georgia Greenway proposal (Hickson 2003) predominantly follows US Highway 17. Some of these segments are proposed to be shoulder bikeway, while others are proposed to be developed as shared use path within the US Highway 17 right of way as shown on the map 6. The main line greenway consists of 72 miles of on-road segments (47 percent) and 80 miles of off-road segments (53 percent) as shown in Table 11. The proposed on-road segments generally are 4 to 5 foot wide paved shoulders on both sides of the existing road. The off-road segments of the proposed greenway are 10 foot wide shared-use paths. In many instances, the off-road segments follow the old roadbed. Several spur segments are also included in the greenway as most recently proposed.

Table 11

Coastal Georgia Greenway Proposal: On-road vs Off-road Segments

County Name	Main Line (From FL To SC)					Spurs	Total
	On-Road		Off -Road		Subtotal		
	(mile)	(%)	(mile)	(%)	(mile)	Off- Road (mile)	(mile)
Bryan County	7.7	72	3.0	28	10.7	0.0	10.7
Camden County	15.5	39	24.2	61	39.7	3.8	43.5
Chatham County	18.6	66	9.7	34	28.4	0.0	28.4
Glynn County	13.6	53	11.9	47	25.5	16.1	41.6
Liberty County	4.6	25	13.6	75	18.2	0.0	18.2
McIntosh County	12.0	41	17.6	59	29.6	0.0	29.6
Total	72.0	47	80.1	53	152.1	19.9	171.9

Source: Computed by CGRDC staff using Coastal Ga. Greenway Alternative Report (December, 2003)

Some of the segments of the proposed Coastal Georgia Greenway (main line) do not follow Highway 17. These are described below from south to north:

- The greenway begins in the City of St. Mary's as an off-road path along St. Mary's Street and Dilworth Street. The greenway is on-road segment on SR 40 north to Spur 40. The greenway is then a path along Spur 40, to an abandoned railroad corridor. A rail trail is proposed in the abandoned railroad corridor then continues as a path along Old Still Road

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and Colerain-St. Mary's Road. The greenway is an on-road segment on Kinlaw Road to US Highway 17.

- Coming from Glynn County, the greenway enters as an on-road segment into the City of Darien via US Highway 17. It continues as an on-road facility on Fort King George Drive and McIntosh Road. An off-road facility is proposed along SR 99 until it intersects Highway 17.
- After running along US Highway 17 in Bryan County, an off-road segment of greenway makes a right turn and follows Sterling Creek in the City of Richmond Hill. The greenway is on-road for a short segment on SR 144. Next an off-road path is proposed in a drainage easement along Cedar Street.
- The southern segment of the greenway in Chatham County is primarily on-road along Canebrake, Argyle, Bush and Pine Barren roads. It then is proposed as a path along US Highway 80. The path continues as the Savannah and Ogeechee Canal (S&O) greenway, crossing Dean Forest Road, and Chatham Parkway. The path continues along Louisville Road. It makes a left turn on Fahm Street and continues as an on-road segment via River Street and River Street Water Front Park to US Highway 17.

The greenway proposal includes four off-road spurs (approximately 20 miles), which are described as follows:

1. **Crooked River State Park - Spur:** Approximately 3.8 miles from the intersection of CSX railroad and Spur 40 to Crooked River State Park in Camden County.
2. **Jekyll Island - Spur:** Approximately 6.6 miles, which runs along State Route 520 from the intersection of US Highway 17 and SR 520 to Beachview Drive on Jekyll Island.
3. **St. Simons Causeway - Spur:** Approximately 4.1 miles of this spur along the F. J. Torras Causeway from US Highway 17 in Brunswick to St. Simons Island.
4. **Harry Driggers Boulevard - Spur:** Approximately 6.0 miles of spur running from US Highway 17 along Harry Driggers Blvd. and Vogel Road to Spur 25 near I-95.

The Coastal Georgia Greenway Alternative as proposed in December 2003 represents a concept for a continuous north – south bicycle and pedestrian facility through the coastal region. Discussions with Jo Hickson, the author of the report, reveal that the concept has evolved since it was proposed in a master plan prepared for the Coastal Georgia Land Trust in 1997.

The alternative published in 2003 and depicted on the attached figure shows alternating on-road and off-road segments. The facility type changed often primarily to lessen impacts on wetlands. Where the roadway (usually Highway 17) was located on a narrow berm through wetlands, the greenway was proposed as a shoulder facility. In locations where there was dry land at the back of the wide highway right-of-way, a shared use path was proposed. Discussions at several BPAC meetings in fall 2004 questioned whether this approach is appropriate. The alternative of a continuous shoulder bikeway along the Coastal Georgia Greenway route was favored by many BPAC members. Recommendations for the development of both on and off-road bicycle and pedestrian facilities as part of the Coastal Georgia Greenway are provided in Chapter 9.

Chapter 7

Analysis of Potential Bicycle Routes

The objective of this analysis is to identify a network of potential bicycle routes in the region. These routes would supplement existing and planned state and local bike routes. In order to do this, the CGRDC performed analysis of trip attractors and trip generators around major state highways.

Data Layers and Data Source:

The following GIS layers were used to determine the potential bike routes:

- Existing land use (residential, commercial, and industrial), produced by the CGRDC for the Georgia Department of Community Affairs (DCA) during FY2000.
- Historic Markers, a coverage developed by the CGRDC for the DCA during FY2002.
- Historic Sites, a coverage produced by the CGRDC in the years 2002 and 2003.
- Community Facilities, a coverage developed by the CGRDC for the DCA during FY2000.
- Conservation Land, coverage downloaded from the GIS clearinghouse.

Methodology:

The existing land uses (residential, commercial, and industrial), as shown on the map 7A and 7B, are concentrated around the state highways in rural and urban areas. Residential land use was used as trip generators, while commercial and industrial land uses, historic markers, historic sites, community facilities, and conservation lands were used as trip attractors.

A 'buffer analysis' technique was used in the analysis of potential bike routes. A half-mile buffer around the state highways was created in order to select different features on a map. All the existing land uses, historic markers, historic sites, and community facilities were selected within the half-mile buffer zone. The analysis shown on maps 7C and 7D revealed that most of the trip attractors and trip generators fall within the half-mile buffer zone of state highways.

Results:

As a result of this analysis and visual representation of different features, the majority of potential bicycle routes as shown in Table 12, map 7E and 7F have been identified outside of the Metropolitan Planning Organization (MPO) areas in order to connect various communities in rural counties of the region. A total of 199 miles of potential bike routes have been identified in the region as shown in Table 13.

In addition to the analysis, the staff investigated these roads in the field to assess the condition and their potential as bicycle routes as shown in Appendix E. For the most part, these routes are moderate to high-speed highways with little or no paved roadway shoulders. More detailed studies need to be conducted by the cities and counties who would potentially designate these roads as bike routes.

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Table 12

Potential Bicycle Routes in the Coastal Georgia Region

City/County Name	Road Name	Length (miles)	Proposed Route Description
Bryan	SR204	11.20	Begins at Chatham/Bryan County line, going west, and ends at the intersection of SR30/US280 East.
Bryan	US280 East	4.77	Starts at the intersection of SR204/SR30, going west and ends at the intersection of S. Main Street (SR67) in Pembroke.
Bryan	SR67	4.17	Runs from the intersection of US 280 East (E. Beacon St.) in Pembroke, going north to Bryan/Bulloch County Line.
Bryan	Ashbranch Rd	3.68	Starts from SR67 in Pembroke and follows E. Smith Road in east and goes north via Ashbranch Road and ends at the Bryan/Bulloch County line.
Bryan	SR119	5.77	Begins from Bryan/Liberty County line, runs north and ends at the intersection of US280/SR30 in Pembroke.
Camden	SR40	23.85	Beginning at the intersection of SR40 and Church St. in St. Marys, the route runs north and then west through Kingsland and ends at the Camden/Charlton County line.
Chatham	SR204	5.96	Starts at the intersection of SR204 (Fort Argyle Rd.) and Bush Road (MPO planned bicycle route), runs west and ends at the Chatham/Bryan County line.
Chatham	SR21	4.80	Starts at the intersection of Jimmy DeLoach Parkway (MPO planned bicycle route) and SR21 (Augusta Road) going toward Rincon in Effingham County. Ends at the Chatham/Effingham County line.
Effingham	SR21	12.50	Starts at the Effingham/Chatham County line and connects with the State Bike Route 95 (SR119) in Springfield.
Glynn	SR27/US Highway 341	16.87	Starts at the intersection of SR303 and US341 and goes toward Jesup. Ends at Glynn/Wayne County line. The Heart of Althamha RDC has also identified US341 in Wayne County as a potential bike route.
Liberty	US84	21.27	Begins at the Long/Liberty County Line and goes through the City of Walthourville, Allenhurst, Hinesville, and Flemington. Ends at intersection with US17 in Midway.
Long	US84	13.53	Starts at Wayne/Long County line and runs through the City of Ludowici and ends at Long/Liberty County line.
McIntosh	SR99	17.35	Starts at US17 in Darien, runs east and and north ending near I-95 in McIntosh County.
McIntosh	SR57	5.15	Begins near I-95 and runs west toward Ludowici. Ends at the intersection of an abandoned railroad crossing and SR57.
Screven	US301 South	14	Begins at Bulloch/Screven County line, runs north and ends at State Bike Route 85 in Sylvania.
Screven	US301 North	16.5	Begins at the intersection of SR21 and US301 in Sylvania and runs north, ending at the Screven County/South Carolina line.
Screven	SR24	7.6	Begins at Bulloch/Screven County line, runs through the City of Oliver and ends at the State Bike Route 85 in the City of Newington.
Screven	SR24	9.6	Begins at the intersection of US301, north of Sylvania, runs through the City of Hiltonia, and ends at the Screven/Burke County line.

Source: Computed by CGRDC staff using GDOT DLGF Roads, 2005

Table 13

Miles of Potential Bike Routes By County

Count Name	Length (Miles)
Bryan	29.59
Bulloch	0.0
Camden	23.85
Chatham	10.76
Effingham	12.5
Glynn	16.87
Liberty	21.27
Long	13.53
McIntosh	22.5
Screven	47.7
Total	198.57

Source: Computed by CGRDC, 2005

Chapter 8

Needs Assessment

The needs assessment has been compiled from comments at the public meeting on September 16, 2004 and from meetings of the Coastal Region Bicycle and Pedestrian Advisory Committee (BPAC). Some information has also been provided by the school districts in the region. These needs cover a wide range of issues and topics, which have been categorized into the four “E’s”: (1) Engineering, (2) Education, (3) Encouragement, and (4) Enforcement.

1. Engineering

A - Facility Design

- Cycling conditions on US Highway 17 (State Bike Route 95) in Glynn County are poor due to inadequate paved shoulder.
- Where there is paved shoulder, rumble strips make the roadway shoulder unusable for bicycles.
- Narrow paths on St. Simons Island make it difficult for cyclists.
- Signs advising cyclists and pedestrians to ride/walk on the right side of the path are needed especially on busier shared use paths.
- Community needs to know standards for bike path construction.



Most of the shared use paths on Jekyll Island and St. Simons Island are less than 8 ft wide.

- Residential developers need to build alternative transportation facilities.
- Any improvement to existing roads should include provisions for bicyclists and pedestrians, especially US Highway 17, State Route 40, and Colerain Road in Camden County.
- Crosswalks need to be more clearly identified both with pavement markings and signing.
- Design certain routes, which are child friendly, and connect them to child related facilities such as schools, parks, and gymnasiums.
- Parking for bicycles and racks are needed throughout the region.
- Bicycle facilities should be designed in such a way that integrates historic resources such as historic sites, etc
- State Bike Route 95 number shown on the State Bike Route Map is very confusing with the Interstate 95. The bike route number should be changed.

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- Get acquainted with GDOT's design and construction policies and work with them collaboratively to improve these.

B – Facility Construction

- Coastal Georgia Greenway master plan (1997) identified an abandoned railroad corridor for bicycle path development from Kingsland in Camden County to Riceboro in Liberty County. There is a need to explore the possibility of land acquisition from timber companies or CSX who owns land of this railroad corridor.
- Need to construct roadway shoulders and paths along State Highway 40, US Highway 17, Boone street extension, and Camden.
- Need a bike lane on Sea Island Causeway/St. Lawrence Road and Highway 303
- A paved shared use path should be constructed along the Brunswick – Altamaha Canal.
- People use Ogeechee-Canal Trail for walking but it needs to be paved for bicycle use.
- Need additional signed bike routes especially in non-MPO areas to link communities and serve concentrations of trip attractors

C - Maintenance

- Existing bicycle and pedestrian facilities throughout the region need regular maintenance
- Debris including glass often restricts use of roadway shoulders by bicycles.
- Existing sidewalks need regular maintenance program.
- Provide a mechanism for bicyclists to report roadway and path maintenance needs.
- Bicycles need to be accommodated in constructions areas.
- Provide appropriate signing and striping during construction and as part of ongoing maintenance.

D – Planning

- Counties and cities need to develop detailed bicycle and pedestrian s plans and programs.

2. Education

A - Motorist Education

- There is a need to educate motorists in ways to effectively and safely share the road with bicyclists.
- Bicyclist information should be included in driver's education.

B - Cyclist Education

- Educate bicyclists to ring a bell or shout a warning when approaching and passing pedestrians and other bicyclists on shared use paths.
- There is a need for continued and expanded education for children as well as their parents about the state's bicycle helmet law. In addition, there is a need to promote helmet use among bicyclists of all ages.

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- Camden County Elementary Schools provide lessons on safety through their health and physical education classes. Also preschoolers are provided with bicycle safety lessons from the local police. Programs for bicyclist and pedestrian safety should be introduced.
- Programs such as Safe Routes to School should be developed. For example, Chatham County Health Department administers the Safe Kids of Savannah Program, which includes aspects on bicycling and walking.

C – Law Enforcement Officers Education

- There is a need for educating law enforcement officers, including State Patrol, about the need for bicycle law enforcement as well as the rights of bicyclists using roadways. For example, the Florida Bicycle Coalition prepared a pocket size book on bicycle safety and provided 50,000 copies to law enforcement officers statewide.

3. Encouragement

A - Tourism Enhancement

- Bicycle tourism is a source of substantial revenue for the region. The industry is developing in Chatham County but it requires more efforts to strengthen this industry. There are some bicycle tour clubs such as Coastal Bicycle Touring Club (CBTC) in the region who arrange bike tours for visitors at a minimal cost. Local tourism agencies on the coast should promote bicycle tourism.

B – Other Encouragement Programs for Bikers and Walkers

- The Centers for Disease Control (CDC) have stated that there is an obesity crisis in America. Biking and walking can be one way to decrease this trend. Health professionals can play an important role in promoting biking and walking facilities and programs. This includes the Chronic Disease Prevention Initiative locally.
- Promote community-wide bike to work and bike to schools on specific days and provide incentives.
- Although many of the students either walk or ride bicycles to schools, there is no formal program such as walk-to-school day available at this time in most parts of the coastal region.


4. Enforcement

- There is a need for enforcement of rules-of-the-road when bicycles and motor vehicles are operating on the same or intersecting roadways and other facilities.
- More law officers should be assigned to enforce traffic laws.


Chapter 9

Needs, Recommendations, and Implementation Strategy

This section presents recommendations for addressing the needs identified through meetings with the public and the Coastal Region BPAC and through analysis conducted as part of this plan. These needs cover a wide range of issues and topics, which have been categorized into the four “E’s”: (1) Engineering, (2) Education, (3) Encouragement, and (4) Enforcement. Recommendations have been developed for the major needs. Agencies are identified to implement the recommendations.

<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p>1. Engineering</p> <p>A - Facility Design</p> <p><u>Roadway Design</u></p> <ul style="list-style-type: none"> • Cycling conditions on most state bike routes are poor due to inadequate paved shoulder. • Where there is paved shoulder, rumble strips can make the roadway shoulder unusable for bicycles.  <p>New GDOT 6.5 ft wide shoulder design with 4-ft smooth paved area beyond rumble strip.</p>	<ul style="list-style-type: none"> • GDOT and local governments should modify their roadway design policy to include the concept of paved usable shoulder for bicycle accommodation. A minimum 4-ft wide paved usable shoulder should be provided on all arterial and collector roads where bicycles are allowed. When rumble strips are provided on highways where bicycles are allowed, the rumble strip should be provided in the outside travel lane or in additional shoulder area or across both areas but not in the 4-ft usable shoulder area. The current policy of providing 6.5 ft shoulders, which include a rumble strip and a 4-ft wide usable shoulder is effective and accommodates all roadway users. Where space is limited, GDOT and local public works agencies should consider a narrower rumble strip and a more narrow usable shoulder (3 feet). 	<p>GDOT, City and County planning, engineering and public works</p>


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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p><u>Shared Use Path Design</u></p> <ul style="list-style-type: none"> Many shared use paths in the region are too narrow. Need uniform design criteria, which meet the requirements of cyclists and pedestrians (e.g., adequate lateral operating space, pavement markings, signs on busier shared use paths, etc.) Communities need to know standards for bike path construction. Residential developers need to build alternative transportation facilities  <p>Shared use path on Jekyll Island</p>	<ul style="list-style-type: none"> Existing shared use paths should be widened to 10 feet; 8 feet in constrained areas such as adjacent to wetlands. As mentioned in AASHTO design guidance, new paths should be constructed to a minimum width of 10 feet to safely accommodate bicycles, pedestrians and other non-motorized users. Center striping should be provided as should trail-head signing describing ‘rules of the path’. Where feasible, widen narrow paths to accommodate current users. Follow AASHTO design guidance as contained in the “Guide for the Development of Bicycle Facilities” (AASHTO, 1999). Provide shared use path construction standards to the community, residential developers, and others. Require developers to provide bicycle and pedestrian facilities as part of new development projects. 	<p>GDOT, City and County planning, engineering public works departments</p>

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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p>B – Facility Construction</p> <p><u>Roadway Improvements</u></p> <ul style="list-style-type: none"> Provisions for bicyclists and pedestrians are needed on all roads. Provisions include bicycle lanes, wide curb lanes, shared use paths, sidewalks, crosswalks, wheel chair ramps, etc. 	<ul style="list-style-type: none"> Provide bicycle and pedestrian facilities as part of new roadway construction, reconstruction, realignment and roadway widening projects. Provide bicycle and pedestrian facilities on US highways, state routes, and city or county roads irrespective of whether they are designated as ‘bike routes’. Retrofit existing facilities as needed based priorities established locally and regionally. 	<p>GDOT, City and County planning, engineering public works departments</p>
<p><u>Coastal Georgia Greenway</u></p> <ul style="list-style-type: none"> Improvements are needed to Highway 17 and Highway 99 to better accommodate bicyclists, pedestrians and motorists. This north – south corridor is an important local and regional route and is significant to regional tourism. Shoulder improvements will improve safety for all roadway users. 	<ul style="list-style-type: none"> The Coastal Georgia Greenway should be listed as the top priority bicycle facility to be developed in the region. In the short term, the greenway should be developed as a shoulder bikeway on Highways 17 and 99. Four feet of paved shoulders without rumble strips should be provided on both sides of the road. Priorities should be established for implementing shoulder improvements with initial segments implemented on the Highway 17 Altamaha Scenic Byway in Glynn and McIntosh counties and on segments with high traffic volumes and concentration of trip attractors. Local governments should identify priority segments in their planning process and may identify segments where sidewalks or shared use paths are needed long term in addition to the paved shoulders. In developed areas, the shoulders should be signed and marked as bicycle lanes. In rural areas, there would be greenway signing but no bicycle pavement markings. 	<p>GDOT, Coastal Georgia RDC, Cities and Counties</p>

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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p><u>Rail Trail Development</u></p> <ul style="list-style-type: none"> The abandoned rail corridor from Kingsland to Riceboro holds promise for rail-to-trail development. A lengthy off-road bicycle and pedestrian facility is needed in the region for transportation and recreation uses.  <p>Abandoned rail corridor in Camden County</p>	<ul style="list-style-type: none"> Analyze the feasibility of developing a shared use path in the abandoned rail corridor from Kingsland to Riceboro. Conduct title research and have discussions with the landowners on the potential for trail development. Explore the possibility of rail-with-trail development north of Riceboro. Analyze the feasibility of developing shared use paths in other abandoned rail corridors such as the east-west corridor in Camden County identified in the Coastal Georgia Greenway report. 	<p>Coastal Georgia RDC</p> <p>Local governments</p>
<p><u>Potential Bike Routes</u></p> <ul style="list-style-type: none"> The existing network of state and local bike routes does not serve all communities and major concentrations of trip attractors. 	<ul style="list-style-type: none"> Analyze land use and trip attractor data in state highway corridors. Identify potential bike routes to connect communities and serve concentrations of trip attractors. Cities and counties outside the MPO areas should evaluate these corridors and designate them as bike routes where appropriate 	<p>Coastal Georgia RDC</p> <p>Local governments</p>

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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p>C – Facility Maintenance</p> <ul style="list-style-type: none"> Existing bicycle and pedestrian facilities need regular maintenance. A mechanism is needed for bicyclists and pedestrians to report roadway and path maintenance problems. 	<ul style="list-style-type: none"> Develop a road, path, and sidewalk sweeping and maintenance programs. Consider “Adopt a Bikeway” program for litter removal on shared use paths Establish a reporting mechanism for maintenance needs. For example, design a form for reporting maintenance problems. Make available through GDOT, cities, and counties. 	<p>GDOT, City and County public works departments</p>
<p>D – Planning</p> <ul style="list-style-type: none"> Need for local planning for bicycle and pedestrian transportation facilities and programs. Investigate the cause of bicycle and pedestrian crashes in the region. 	<ul style="list-style-type: none"> Form city and county bicycle and pedestrian advisory committees. Prepare local bicycle and pedestrian plans. Analyze motor vehicle/bicycle and motor vehicle/pedestrian crash data, crash types, and evaluate counter measures. 	<p>Local governments</p> <p>MPOs, Coastal Georgia RDC, Counties, and Cities</p> <p>MPOs, Coastal Georgia RDC, Counties, and Cities</p>
<p>2. Education</p> <p>A - Motorist Education</p> <ul style="list-style-type: none"> There is a need to educate motorists in ways to effectively and safely share the road with bicyclists. 	<ul style="list-style-type: none"> Develop a “Share the Road” campaign to increase motorists and bicyclist education. Initiate this campaign at the state level and then extend to communities and local groups. Media should be involved to carry out this campaign. Educate motorists through the driver’s license process and driver training programs. Reach motorists through information contained in driver’s license manuals and incorporate bicycle safety and “Share-the-Road” message. Bicycling-related questions related to this issue should be part of the driver’s exam. 	<p>GDOT, City and County governments, public and private sector organizations.</p> <p>Department of Motor Vehicles (DMV)</p>

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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p>B - Bicyclist and Pedestrian Safety Education</p> <ul style="list-style-type: none"> Educate bicyclists to ring a bell or shout a warning when approaching and passing pedestrians and other bicyclists on shared use paths. There is a need for continued and expanded bicycle and pedestrian safety education for children and adults. In addition, there is a need to promote helmet use among bicyclists of all ages. 	<ul style="list-style-type: none"> Conduct trainings for cyclists using local bicycle groups as a platform. Continue to promote public awareness and acceptance of the current statewide helmet law, which requires helmet use by persons 16 years of age or younger. Bicycle and pedestrian safety education should be included in school curriculum. 	<p>City and County government and private sector bicycle clubs</p> <p>Police Departments, public health departments, and others</p> <p>School districts with assistance from Coastal Georgia RDC</p>
<p>C - Education of Law Enforcement Officers</p> <ul style="list-style-type: none"> There is a need for educating law enforcement authorities, including State Patrol, about pedestrian and bicycle related traffic laws. For example, the Florida Bicycle Coalition prepared a pocket size book on bicycle safety and provided 50,000 copies to law enforcement officials statewide. 	<ul style="list-style-type: none"> Encourage the state and local law enforcement agencies to include bicycle and pedestrian related training and education programs, such as the program provided at FLETC (see Chapter 2). Emphasize the rights and responsibilities of pedestrians, bicyclists, and motorists. 	<p>State Patrol, City and County Police Departments</p>
<p>3. Encouragement</p> <p>A - Tourism Enhancement</p> <ul style="list-style-type: none"> Bicycle tourism is a source of substantial revenue for the region. The industry is developing in Chatham County, but more efforts are needed to strengthen this industry in the region. 	<ul style="list-style-type: none"> Work with bicycle tourism industry to identify actions that will expand the bicycle tourism market. Conduct study of the economic impacts of bicycle tourism in coastal Georgia. Include bicycle related materials in tourism promotions of the coastal region 	<p>Coastal Georgia RDC and bicycle industry</p> <p>Coastal Georgia RDC</p> <p>GA Dept of Economic Development</p>

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<i>Needs</i>	<i>Recommendations</i>	<i>Responsible Agency for Implementation</i>
<p>B –Encouragement Programs for Bikers and Walkers</p> <ul style="list-style-type: none"> • The Centers for Disease Control (CDC) have determined that there is an obesity crisis in America. Incorporating more biking and walking into daily routines can help decrease this trend. • Traffic congestion has increased at schools as more parents drive their children to and from school. • Parking and traffic congestion can be lessened as more people bike, walk, carpool or use transit to travel for work, school, and other trips. 	<ul style="list-style-type: none"> • Develop and distribute promotional materials on the benefits of biking and walking. Initiate walk and bike to work days in communities. • Initiate Safe Routes to School programs at area schools, identify needed improvements to biking and walking routes, and develop programs to encourage biking and walking. • Organize an annual bicycle and safety conference/workshop at a regional level, which would allow facilitating, networking, and sharing of ideas and programs conducted in each county. 	<p>Coastal Georgia RDC, health professionals, city and county officials, and businesses</p> <p>Coastal Georgia RDC and school districts</p> <p>Coastal Georgia RDC with city and county participation, parks and recreation department, and schools</p>
<p>4. Enforcement</p> <ul style="list-style-type: none"> • There is a need for enforcement of rules-of-the-road when bicycles and motor vehicles are operating on the same or intersecting roadways and other facilities. • More law officers should be assigned to enforce traffic laws. 	<ul style="list-style-type: none"> • Law enforcement agencies can play an important role in educating bicyclists about their responsibilities as road users • Develop manuals, which summarize and clarify traffic laws for motorists and bicyclists. • Involve law enforcement agencies in planning of bicycle facilities within a community. • Promote police-on-bicycle programs. 	<p>Police Department</p> <p>Department of Motor Vehicles</p> <p>State Patrol, county, and city police, departments</p>

APPENDICES

Coastal Georgia Regional Bicycle and Pedestrian Plan

Appendix-A List of Contacts in the Region

Local Plans/GIS Data

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Appendix-B

Meeting Notes

Bicycle Pedestrian Advisory Committee

March 31, 2004

1st Floor Conference Room, 127 “F” Street, Brunswick, Georgia 31520

Invitees Present: Chris Beaufait, Monkeywrench Bicycles Shop Owner (St. Simon’s Island), Celenda Perry, CCAR (City of St. Mary’s), Benji Bluestein, Benjy’s Bike Shop Owner (St. Simon’s Island), Georgia Shaw, bicycle advocate and City Staff (Tybee Island).

Staff Present: Iris M. Scheff, AICP, CGRDC

Invitees Absent: Remaining 8 counties and remaining 28 cities member government representatives. All Lower and Higher Public Education Facilities; Refer to Attached Mailing List for sampling of those invited.

Call to Order: Iris M. Scheff, AICP, CGRDC Regional Staff Bicycle Pedestrian Coordinator, called the meeting to order at 1:40 p.m.

Introductions: In response to staff request, attendees introduced themselves by name, and briefly described their interests in participating on the advisory committee.

Presentations:

- Local Plans that had been gathered to date were set out on display for the committee member’s resource materials.
- Iris M. Scheff explained the GDOT Bicycle Pedestrian Work Program, the deliverables for the month of March, and the overall goal of a state plan being formulated, as well as the purpose of today’s meeting- to formulate goals and objectives for a regional bicycle pedestrian plan- was described. The general timeframe for the entire GDOT bicycle pedestrian work program was conveyed.
- Staff answered attendees’ questions. Participants inquired as to the specific relationship of East Coast Greenway to the present effort. The response was that Coastal Georgia Greenway and East Coast Greenway are the same entities but renamed, and that the Coastal Georgia Greenway plan is formed of private consultants working for an interstate organization, while the Georgia DOT’s Bicycle Pedestrian Coordinator is the government branch staff responsible to put together a statewide plan based on actual regional plans based on local plans; the state BP plan will be utilized for comparison purposes by the state in the granting of future funding requests from local governments. The Georgia Greenway plan routes will be included in, and will be a component of our regional plan since it’s routes are located within our region, this region a part of the Georgia statewide bicycle pedestrian plan.
- Meeting Strategy for covering the necessary work program items (goal and objective formulation) during the timeframe of the remainder of the meeting was described.

Coastal Georgia Regional Bicycle and Pedestrian Plan

Old Business:

- Attendees expressed surprised and disappointment at the low turnout of four to the meeting. Staff described the method of advertising, the contents of the invitee's list, and the methods of personal and mail contact to enlist committee members. There was explanation of time lapse between the first widely distributed memorandum for member nominations (early February), follow-up techniques employed subsequently, including faxes, mailed memorandums and public notices, postcards, and finally, personal telephone calls to clerks, commissioners, and bike shop owners, to gain support from the public in the form of both committee participation and the submittal of local jurisdictions' bicycle plans.
- Staff explained to attendees that the GDOT work program explicitly called for active involvement by local governments, meaning Coastal Georgia's nine counties and thirty cities, so forthcoming regional and state plans would be a result of active citizen participation, and be a valid representation of citizen's objectives for the region. Staff again described efforts from public memorandums to be posted by city clerks and places on local agenda, to personal follow-up telephone calls combined with advance e-mails to each local county and city, requesting advisory committee member nomination, as well as submittal of local plans. As of the date of the meeting, not all local plans had been located, nor received.
- Lack of local government participation and general apathy in response to the program was determined by attendees to be a major problem to a successful bicycle pedestrian plan.
- Past failures of previous bicycle pedestrian plans was also determined by attendees to be a major problem in gaining impetus for the work program.
- Advisory Members determined to attempt one more time to contact others to encourage attendance to upcoming meetings through the remainder of the process.
- CGRDC Staff was requested to include specific agencies, businesses, recreation directors, school board members, and cycling clubs in the Advisory Committee Contact list, which were as follows: Golden Isles Track Club; Savannah Bicycle Club; Team Camden; Quality Bikes; Paul Christian Cycle Club; Roger Parian- Pembroke, Southern Cyclist Magazine; (912) 352-4145; Georgia Greenways Plan; William Brunson, Camden County Recreation Director; Wesley Davis, Glynn County Recreation Director; Mezula Montana, Bike America.

New Business:

- Iris Scheff, AICP, CGRDC Planner, used a notepad and initiated round-table responses to the agenda item issue: Challenges Problems for Bicyclists/Pedestrians. It was asked that responses be either general issues, or specific road sections or bike or pedestrian paths that attendees would like to have developed for bicycle routes. The following input was received:
 - Death;
 - Sidewalks inappropriate for bikes but not used by pedestrians;
 - Highway 40, Camden County; Naval Base going north to Crooked River, then south to downtown St. Mary's (off river road trails),
 - St. Simon's Causeway bicycle path a great interface between US 17 and bicycle path-problem;
 - Head south on 17 to Jekyll Island is a common ride ruined by *rumble strips* ruining the ride; continue to Jekyll Island Causeway- WIDEN;

Coastal Georgia Regional Bicycle and Pedestrian Plan

Sidewalk- Crosswalk Identification is a big problem in general, everywhere;
Paint and Signs, miss located stop bars;
Sidewalk- Crosswalk Identification for multi-use
Bicycle Lane on Sea Island Causeway/St. Lawrence Road (north end of St. Simons)
Bicycle LANES on St. Simon's Island (already have paths) for more advanced riders;
Highway 17;
Highway 303;
Abandoned Rail Beds in Glynn County need planned for conversion to Bike Paths;
Brunswick Altamaha Canal Trail needs paved with 12-15 foot multi-use trail;
"Fat Tired Set" Blythe Island Regional Park- one mile of off road trails we have approval to use trails – record on maps at CGRDC's GIS division;
Tybee Island- Highway 80 from Mainland to Island- two bridges. Long-term plan expand to 4 lanes- needs a bike path Base Realignment And Closure (BRAC) ends on Tybee this year;
Highway 80 has lane on Wilmington Island;
Skidaway Road Downtown to Skidaway Island;
Truman Parkway from downtown to 204 on South Side;
Highway 80 leading out of town to Garden City and City of Pooler;
Highway 17 going south;
Canal Trail- Ogeechee people walk or "fat tire" bike but needs to be paved for riding (17 miles)
Airport Strip- St. Simon's Island, allow people to ride around the area by solar lights;
Maintenance, regular, on Causeway Path to rid of broken glass and debris;
Post Rules for cyclists to be courteous to pedestrians or bills mandatory;
Bike Parking- bike racks needed to lock bikes throughout the region;
Brochures and Maps for each area within the region for cyclists needed;
Bike Speed Limits depending on road conditions (this refers to the varying-level cyclist abilities concept);
Education & Enforcement- put fines back into bicycle pedestrian paths;
Advocate exercise or stretch stations along recreation paths to increase use and versatility;
Walkways for elderly (i.e. to walk at a slower pace);
Historic Routes- route paths along historic sites;
Child Friendly Routes- Design certain routes for child friendliness, and connect child related facilities such as schools, parks, and gymnasiums;
State Bike Route Map- does not depict real, bike-able, walk-able trails. Assign a new number to Georgia State Bike Route 17 on the State Bicycle Routes Map, which is too easily confused with Highway 17 by out of state visitors.

- A Flip Chart was used to record major general issues and concerns.
- The issues and concerns were restated in the form of goals and objectives.
- The next meeting was tentatively set for the fourth Thursday in April at 1:30pm and will be held at the CGRDC first floor conference room in Brunswick. Subsequent meetings are scheduled for May and June, to be advertised by e-mailed, mailed and faxed posted notices at local member governments, and on local radio stations, television channels, and newspapers.
- All Bike Plans available from member governments in the Coastal Georgia Region are to be available at the upcoming meeting. A draft map will be printed and displayed.

Adjournment: The meeting was adjourned at approximately 4:00 pm.

Meeting Notes

Bicycle Pedestrian Advisory Committee

April 29, 2004

First Floor Conference Room, 127 "F" Street, Brunswick, Georgia 31520

Invitees Present: Chris Beaufait, Monkeywrench Bicycles Shop Owner (St. Simon's Island), Celenda Perry, CCAR (City of St. Mary's), Benji Bluestein, Benji's Bike Shop Owner (St. Simon's Island), Carolynn Segers, Planner II (Glynn County).

Staff Present: Iris M. Scheff, AICP, CGRDC

Invitees Absent: Remaining 7 counties and remaining 27 cities member government representatives. All Lower and Higher Public Education Facilities; Refer to Attached Mailing List for sampling of those invited.

Call to Order: Iris M. Scheff, AICP, CGRDC Regional Staff Bicycle Pedestrian Coordinator, called the meeting to order at 1:45 p.m.

Introductions: Carolynn Segers of Glynn County staff introduced herself to attendees.

- Iris M. Scheff reviewed the GDOT Bicycle Pedestrian Work. The progress to date within the general timeframe for the entire GDOT bicycle pedestrian work program was reviewed.

Old Business:

- Minutes- corrections were made and the minutes approved with corrections as noted.
- Attendees briefly discussed their responses to the draft Goals and Objectives.
- Attendees expressed satisfaction that although more persons did not attend, that they could represent the bicyclists adequately in that they were members of bike clubs and avid bicyclists.
- As of the date of the meeting, most approved local plans had been located, and received.
- Advisory Members determined to attempt one more time to contact others to encourage attendance to upcoming meetings through the remainder of the process.
- CGRDC Staff was requested to include specific agencies, businesses, recreation directors, school board members, and cycling clubs in the Advisory Committee Contact list, which were as follows: Golden Isles Track Club; Savannah Bicycle Club; Team Camden; Quality Bikes; Paul Christian Cycle Club; Roger Parian- Pembroke, Southern Cyclist Magazine; (912) 352-4145; Georgia Greenways Plan; William Brunson, Camden County Recreation Director; Wesley Davis, Glynn County Recreation Director; Mezula Montana, Bike America.

New Business:

- The advisory committee members reviewed the Goals and Objectives.
- Future Meetings were to be held on May 20 and June 17 at two places- Brunswick and Richmond Hill.
- A "bike in" meeting was considered and the idea tabled as issues of timing and conduct of an actual meeting were considered in relation to a physical activity. More advertising will be issued in preparation for the June meeting, which is to fulfill the 2nd of two public meetings requirement set by the state.

Adjournment: The meeting was adjourned at approximately 3:30 pm.

Meeting Notes

Bicycle Pedestrian Advisory Committee

May 20, 2004

9:30 a.m., First Floor Conference Room, 127 “F” Street, Brunswick, Georgia
1:30 p.m., The Wetlands Education Center, 600 Cedar Street, Richmond Hill, Georgia

Invitees Present: 9:30 a.m. Brunswick meeting- Benji Bluestein, Benji’s Bike Shop Owner (St. Simon’s Island), Artie Jones III, City of Brunswick, City Planner;

1:30 pm Richmond Hill Meeting- Mike Polsky- Cochran/Bleckley County, Larry Mutter, Bulloch County, Jo Hickson, Coastal Georgia Greenway representative.

Staff Present: Mushtaq Hussain, CGRDC Planner/ GIS Analyst

Invitees Absent: Remaining county and city member government representatives. Lower and Higher Public Education Facilities representatives

Call to Order: Mushtaq Hussain, CGRDC Planner/ GIS Analyst, called the meeting to order at 1:45 p.m.

Introductions: Mushtaq Hussain introduced himself to attendees as staff representative for the CGRDC Bicycle Coordinator.

- Mushtaq displayed a draft bicycle pedestrian regional map, for public input and comment.

Old Business:

- It was noted that attendance was lower than previous meetings.
- Minutes- the minutes stood approved as presented without vote or comment from attendees.
- Mushtaq Hussain reviewed handout material describing the GDOT Bicycle Pedestrian Work progress to date. The attendees received Georgia GDOT Bicycle Maps, a copy an article on Bicycling published in the Brunswick News newspaper, an Economic Impact Case Study of Bicycling in North Carolina called “Pathways to Prosperity”, and copies of the minutes and progress update summaries from previous meetings.
- The upcoming June 17 meeting was to be rescheduled after the beginning of the next fiscal year starting July 1, 2004, a new date and time to be published, when determined.

New Business:

- The advisory committee members reviewed the draft Bicycle Pedestrian Map, and all handout materials circulated.
- Larry Mutter of Bulloch County hand delivered provided bicycle pedestrian routes GIS data to Mushtaq Hussain for CGRDC use in developing the regional bicycle pedestrian plan.
- Jo Hickson briefly described the proposed Coastal Georgia Greenway program.
- Future Meetings were to be held after July 1, 2004, locations and times to be announced.

Adjournment: The Brunswick 9:30am meeting was adjourned at approximately 10:30am.
The Richmond Hill 1:30 am meeting was adjourned at approximately 2:45 pm.

**REGIONAL BICYCLE AND PEDESTRIAN
ADVISORY COMMITTEE MEETING**

August 19, 2004
Electric Management Cooperative
Midway

Persons Present

Zoe Hardenbrook, GDOT District 5 Special Projects Coordinator, Jesup
Carolyn Segers, Brunswick MPO/ Glynn Co. Transportation staff, St. Simons Island
Terry Landreth, Turn2Bicycle Center, Kingsland
Dave Sanderson, Bicycle Savannah, LLC, Savannah
Scott Morgan, Coastal Bicycle Touring Club (CBTC), Pooler
Paul Wolff, City Council, Tybee Island
Paul DeVivo, Bike Trail Committee, Tybee Island
Chris Beaufait, Monkeywrench Bicycles, St. Simons Island

Staff Present

Mushtaq Hussain
Iris Scheff
Paul Smith

MEETING NOTES

Scope of Work

Paul Smith welcomed everyone to the meeting and explained the scope of work of the Regional Bicycle and Pedestrian Plan. Initial work will focus on Task 3, Analysis of Existing Conditions. This task is underway and includes collection of a variety of data on existing bicycle and pedestrian transportation facilities and programs. Mushtaq Hussain described the two-part regional map showing existing bicycle and pedestrian facilities. The map is a geographic information system coverage (GIS) developed by the Coastal Georgia Regional Development Center according to standards established by Georgia Department of Transportation (GDOT).

Future meetings will include identification of needs, recommended projects and programs, and implementation strategies.

Schedule

It was agreed to hold future meetings at the EMC facility in Midway, beginning at 6:00 PM, on September 16, 2004, October 21, 2004, November 18, 2004, January 20, 2005, and February 17, 2004 as displayed on a schedule within the enhanced scope of work (see attached). The meetings in September 2004 and January 2005 will be public meetings.

Discussion

Each attendee described their interest in bicycling and/or walking in Coastal Georgia. An open discussion of existing bicycle and pedestrian facilities, conditions and programs followed. A handout was provided that described the three basic types of bicycle facilities:

Coastal Georgia Regional Bicycle and Pedestrian Plan

- Shared use paths
- Bicycle lanes
- Shared roadway

The committee also discussed their desire to consider the needs of cyclists of different ages and abilities, referencing the Federal Highway Administration (FHWA) groups:

- Group A advanced bicyclists
- Group B basic or less confident adult and teenage cyclists
- Group C children

Next Meeting

The next meeting, which will be advertised as a public meeting, is scheduled for September 21, 2004.

Adjournment

The meeting adjourned at 7:30 PM.

Coastal Georgia Regional Bicycle and Pedestrian Plan

PUBLIC MEETING

Regional Bicycle and Pedestrian Plan

September 16, 2004

Electric Management Cooperative
Midway

Persons Present

Sonny Timmerman, Hinesville Metropolitan Planning Organization (MPO)
Bob Ventura, President Coastal Bicycle Touring Club (CBTC), Guyton
Sharon Ventura, CBTC
Scott Morgan, Safety Director, CBTC
Tom Missildine
Dave Sanderson, Bicycle Savannah LLC
Jo Hickson, consultant, Coastal Georgia Greenway, Savannah
Harry Hickson, Savannah
Barb Shipley, CBTC
Terry Landreth, Turn2 Bicycle Center, Kingsland
Marsha Pierce, Chronic Disease Prevention Coordinator, Coastal Health District, Brunswick
Vera Gulley, Brunswick
Chris Beaufait, Monkey Wrench Bicycles, St. Simons Island
Tom McBride, Velobrew Bike Club, St. Simons Island
Bill Brockwell, Velobrew Bike Club, St. Simons Island

Staff Present

Mushtaq Hussain
Iris Scheff
Paul Smith

MEETING NOTES

Introductory Comments

Paul Smith welcomed everyone to the meeting and explained the background of the Regional Bicycle and Pedestrian Plan. He summarized the agenda and emphasized the importance of public comments on existing bicycle and pedestrian transportation facilities and programs, needs and implementation strategies.

Existing Conditions Reports

Iris Scheff summarized existing bicycle and pedestrian plans in the region. The most extensive bicycle and pedestrian plan in the region was prepared in 2003 by the Chatham County – Savannah MPO. No bicycle and pedestrian plans have been adopted for the other two metropolitan planning organizations. However, both the Brunswick and Hinesville MPOs are currently preparing long range transportation plans (LRTPs) and will address bicycle and pedestrian transportation within these documents. A bicycle and pedestrian study was prepared for the Brunswick/Glynn County area by a consultant 10 years ago.

Coastal Georgia Regional Bicycle and Pedestrian Plan

Georgia Southern University (GSU) prepared a greenways system master plan for Bulloch County in 2003. While elements of this plan are being implemented, it has not been adopted by the Bulloch County Commission.

A plan for the Coastal Georgia Greenway was prepared in 1997. The most current concept plans for this regional bicycle and pedestrian facility were prepared in 2003 in the report entitled: 'The Coastal Georgia Alternative'. Bridges on the route were assessed in a supplemental report published in 2004.

Mushtaq Hussain presented a two-part Geographic Information System (GIS) map showing existing bicycle and pedestrian facilities in the region. The GIS coverage was developed in coordination with Georgia Department of Transportation (GDOT) who has established guidelines for this statewide project. GIS data were obtained from the Metropolitan Planning Organization (MPC) for Chatham County and from GSU for Bulloch County. All other data were researched and digitized by the RDC.

Mushtaq also presented a two-part GIS map showing locations of motor vehicle/bicycle and motor vehicle/pedestrian crashes in the region in 2000 - 2003. The GIS coverage was developed in coordination with GDOT who provided the data.

Paul Smith briefly discussed bicycle and pedestrian facility design. RDC staff conducted field inventories at several locations on US Highway 17 (State Bicycle Route 95) in Glynn and McIntosh counties and on several shared use paths on St. Simons Island, Jekyll Island and the Torras Causeway. Handouts were provided which included photographs and geometric data.

Two-lane sections of Highway 17 are typically 28 feet wide with 12-ft travel lanes and 2-ft paved shoulders. Speed limit is posted at 55 miles per hour (mph). The amount of lateral space for side-by-side operation of motor vehicles and bicycles is inadequate. Overtaking and passing of bicycles can be dangerous in the presence of oncoming vehicles. This is especially problematic in north Glynn County due to high traffic volumes. A four-lane divided highway section in Glynn County was measured at 29 feet for the southbound barrel. This space was divided into a 4 ft outside shoulder, two 12 ft lanes and a 1 ft inside shoulder. A rumble strip occupied the entire 4 ft wide outside shoulder.

Many of the shared use paths that were inventoried had inadequate lateral space. All but one were less than 8 ft wide making it very crowded for 2-way bicycle and pedestrian traffic.

Public Comment Period

Over one hour of the meeting consisted of public comments. Excerpts of the comments follow:

- Jane Garrison of the Chatham County Health Department administers the Safe Kids of Savannah Program which includes aspects on bicycling and walking.
- The Florida Bicycle Coalition prepared a pocket size book on bicycle safety and provided 50,000 copies to law enforcement officials statewide.
- An option for the existing 28 ft wide paved sections of Highway 17 would be to stripe 11 ft lanes and 3 ft shoulders.
- Rumble strips destroy an otherwise great surface for cycling.

Coastal Georgia Regional Bicycle and Pedestrian Plan

- Jo Hickson stated that the right of way of Highway 17 is typically 100 ft wide and can support a separate path in many locations.
- The Sun Coast Trail near Tampa was cited as an example of a well-designed shared use path.
- The Centers for Disease Control (CDC) have stated that there is an obesity crisis in America. Biking and walking can be one way to decrease this trend. Health professionals can play an important role in promoting biking and walking facilities and programs. This includes the Chronic Disease Prevention Initiative locally.
- Bicycle and pedestrian facilities such as rail trails, other shared use paths and shoulder bikeways can promote tourism and bring economic benefits to the coastal region.
- We need a cultural change and education in order for biking and walking to take off in this region.
- Motorists do not know how to share the road with bicycles. We need to put a question or two on the drivers test.
- Highway 17 (State Bicycle Route 95) is the worst road for biking in Glynn County.
- Chris Beaufait of Monkey Wrench Bicycles said that is important to think globally and act locally. Improve from the community outward. It requires different thinking. Chris supported the idea of a separate facility (shared use path) along Highway 17 where practical. Riding around the neighborhood is important.
- Jo Hickson suggested we re-examine the abandoned rail corridor from Camden County to Riceboro. When they did the greenway plan, the major land owners were not interested in granting an easement for a trail. However this may be different now that many of the landowners including timber companies are selling their property.
- The narrow paths on St. Simons Island make it difficult for cyclists. Those cyclists that choose to ride on the roads, which are also narrow are typically harassed by motorists.

Next Meeting

The next meeting is scheduled for October 21, 2004.

Adjournment

The meeting adjourned at 7:55 PM.

**REGIONAL BICYCLE AND PEDESTRIAN
ADVISORY COMMITTEE MEETING**

October 21, 2004
Electric Management Cooperative
Midway

Persons Present

Sonny Timmerman, Hinesville Metropolitan Planning Organization (MPO)
Brandon E. Wescott, Planner, Hinesville MPO
Carolynn Segers, Planner II, Brunswick MPO
Iris M. Scheff, Planner III, Glynn County
Wykoda Wang, Transportation Planner, Savannah MPO
Marsha Pierce, Chronic Disease Prevention Coordinator, Coastal Health District, Brunswick
Scott Morgan, Education/Safety Director, Coastal Bicycle Touring Club (CBTC), Pooler
Kay Morgan, CBTC, Pooler

Staff Present

Mushtaq Hussain
Paul Smith

MEETING NOTES

Paul Smith welcomed everyone to the meeting and summarized the agenda. He highlighted the importance of discussion on needs of bicycle and pedestrian facilities and programs in the region. He suggested that in addition to today's discussion on needs, the attendees can also send us their ideas via email.

Paul started discussion with the regional context of the bicycle and pedestrian plan. There are three Metropolitan Planning Organizations (MPOs) in the coastal Georgia region. The projects identified within the MPO areas must be listed in the Transportation Improvement Programs (TIPs) of each MPO. The prepared a map showing the three MPO areas. The areas outside the MPOs are classified as 'rural' and federally funded transportation projects in these areas are programmed by GDOT through State Transportation Improvement Program (STIP). The RDCs assist GDOT in planning and programming projects within the rural areas of the region.

Mushtaq presented a Geographic Information System (GIS) map of the Coastal Georgia Greenway (CGG), which covers six counties along the coast. The CGG represents a Georgia section of the East Coast Greenway. The CGG main line is approximately 152 miles long, which primarily runs along US Highway 17 (State Bike Route 95). Sections of the facility are identified on the map as 'on-road' or 'off-road', and the number of miles for each type of facility are calculated for each jurisdiction. The map also shows four spurs from the main line in Camden and Glynn counties. It was suggested that a note be placed on the map stating that the source for the data is the recommendation of the December 2003 Coastal Georgia Greenway report and that the final design of greenway segments may differ based on more detailed feasibility and engineering studies.

Mushtaq also discussed bicycle and pedestrian crash data analysis tables. He informed the committee that the data were obtained from GDOT and shows interesting results. The urban areas

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of Chatham, Glynn, Liberty, and Bulloch counties show more concentration of the bicycle and pedestrian crashes in the coastal region. The data also revealed on average, 10 pedestrians died each year from 2000 to 2003. Data on bicycle crashes by manner of collision were also discussed.

He also provided an update on progress obtaining the roadway characteristics (RC) database from the GDOT. He stated that he has to resolve some of the technical issues such as linking the RC database file with the road network file in order to show shoulder width information along the state bike routes.

Paul Smith briefly explained that the RDC has obtained the roadway design material from the GDOT Headquarters and the District 5 Office in Jesup. He has been discussing and reviewing the material collaboratively with GDOT officials.

Discussion of Needs for Bicycle and Pedestrian Facilities

Approximately 45 minutes of the meeting time was allocated for the B&P needs in the coastal Georgia region.

- Carolynn Segers suggested that GDOT has to modify their design standards and use new standards for construction of facilities. We need to figure out the GDOT policies for constructing the facilities, and the RDC needs to work collaboratively with them to improve the policies. She commented that the state funds cannot be used for constructing separate facilities. As an example, she stated that the path on Harry Driggers Blvd. is 7 ft. wide, which is a Transportation Enhancement (TE) project and does not meet the AASHTO guidelines.
- A CBTC representative made a comment on rumble strips and asked about the criteria of using rumble strips. He specifically mentioned that on US Highway 17/204 toward Savannah, the facility is not continuous. The provisions on bike routes during roadway construction should be made.
- The GDOT must accommodate B&P needs on all projects, including provisions for handicapped and visually impaired people.
- MPOs and the RDC should hold a meeting of GIS experts to discuss methodology of linking RC and road centerline data for analysis purposes. If necessary, a pilot project can be developed to accomplish this task. Glynn County listed this as a work item in their Unified Planning Work Program (UPWP) for two years, but nothing has happened yet.
- Iris Scheff suggested that the RDC should draw a cross-section of a state bike route and compare it with the standard.
- Because of the growing obesity problem in America, there is a need to promote bicycling as a healthy activity, which can help reduce the problem. However, the state bike routes such as US Highway 17 are not safe to ride a bicycle.
- The design of facilities needs to consider all types of bicycles including recumbent bicycles and bicycles with trailers. Children often ride in the bicycle trailers.
- Older cyclists may have different needs.

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- In order to encourage more bicycling and walking, we need to 1) implement safety related educational programs, 2) enforce traffic laws and 3) engage citizen and neighborhood groups, town level bike and pedestrian committees, school councils, and police departments.
- Marsha commented that four years ago, Georgia law created school councils, which were state mandated. She used Camden County as an example.

Next Meeting

The next meeting is scheduled for November 18, 2004.

Adjournment

The meeting adjourned at 7:55 PM.

**REGIONAL BICYCLE AND PEDESTRIAN
ADVISORY COMMITTEE MEETING**

November 18, 2004
Electric Management Cooperative
Midway

Persons Present

Scott Morgan, Education/Safety Director, Coastal Bicycle Touring Club (CBTC), Pooler
Barb Shipley, CBTC, Richmond Hill
Brandon E. Wescott, Planner, Hinesville MPO
Chris Beaufait, Monkey Wrench Bicycles, St. Simons Island
Terry Landreth, Turn2 Bicycle Center, Kingsland

Staff Present

Mushtaq Hussain
Paul Smith

MEETING NOTES

Introduction

Paul Smith welcomed everyone to the meeting and summarized the agenda. He highlighted the importance of discussion on the draft recommendations matrix, which was e-mailed to the Bicycle and Pedestrian Advisory Committee (BPAC) on November 12.

Notes of Previous Meetings

Notes of the September 16, 2004 Public Meeting and October 21, 2004 BPAC Meeting were distributed to the committee on November 12. There were no suggested changes to the notes for these two meetings.

Needs Assessment

Mushtaq Hussain summarized a technical memorandum he distributed to the BPAC on November 12. The needs assessment was based on comments at previous BPAC meetings and at the September Public Meeting and was organized by topic. Since the needs were included in the Recommendations Matrix, the committee decided to focus their comments on the recommendations.

Recommendations

Coastal Georgia Greenway – It was the consensus of the committee that the Coastal Georgia Greenway be listed as the top priority bicycle facility to be developed in the region. The committee recommended that the greenway be developed as a shoulder bikeway for the entire route on Highway 17 and Highway 99. Four feet of paved shoulders without rumble strips should be provided on both sides of the road. Priorities should be established for implementation of the shoulder improvements with initial segments implemented on the Highway 17 scenic byway in Glynn and McIntosh counties and on segments with high traffic volumes and concentration of trip

Coastal Georgia Regional Bicycle and Pedestrian Plan

attractors. Local governments should identify priority segments in their planning process and may identify segments where sidewalks or shared use paths are needed in addition to the paved shoulders. GDOT will be providing 6.5 ft wide paved shoulders, which include a rumble strip and a smooth 4-ft wide paved shoulder, on some segments of Highway 17 where additional travel lanes will be built. An improvement of this type is now being implemented on Highway 17 near Route 204 in Savannah. Another is planned with the four-laning of Highway 17 from Chapel Crossing Road to Harry Driggers Boulevard in Glynn County. In developed areas, the committee recommends that the shoulders be signed and marked as bicycle lanes. In rural areas, there would be greenway signing but no bicycle pavement markings.

Rail Trail Development – The committee believes that the abandoned rail corridor from Kingsland to Riceboro holds promise for rail trail development. They support further analysis by the RDC including discussions with the landowners and discussions with CSX on possible rail-with-trail development north of Riceboro. The committee also supports similar trail development in other abandoned rail corridors such as the east-west corridor in Camden County identified in the Coastal Georgia Greenway report.

Roadway Design – The committee agreed with the recommendation that GDOT modify their roadway design policy to include the concept of paved usable shoulder for bicycle accommodation. A minimum 4-ft wide paved usable shoulder should be provided on all roads. When rumble strips are provided on highways where bicycles are allowed, the rumble strip should be provided in the outside travel lane or in additional shoulder area or across both areas but not in the 4-ft usable shoulder area. The current policy of providing 6.5 ft shoulders, which include a rumble strip and a 4-ft wide usable shoulder is effective and accommodates all roadway users. Where space is limited, GDOT and local public works agencies should consider a more narrow rumble strip and a more narrow usable shoulder (3 feet). Placing some of the rumble strip in the outer part of the outside travel lane should also be considered.

Shared Use Path Design – The committee recommended that concrete not be used as a building material for shared use paths. Reasons are 1) it is bad for runners, 2) it is subject to heaving, 3) it is not flexible and 4) the edge drop-off is too abrupt. Existing shared use paths should be widened to 10 feet; 8 feet in constrained areas such as adjacent to wetlands. New paths should be constructed to a minimum width of 10 feet to safely accommodate bicycles, pedestrians and other non-motorized users. Center striping should be provided as should trail-head signing describing ‘rules of the path’.

New Construction – The committee recommended that bicycle and pedestrian facilities be provided on all new roadway construction whether it is a US highway, state route, or city or county road including subdivision streets.

Maintenance – State and local governments need to recognize maintenance needs of bicycle and pedestrian facilities, establish an adequate budget and a response mechanism. Publishing telephone numbers on road signs is an option for reporting road maintenance needs.

Planning – The committee recommended the formation of local bicycle and pedestrian advisory committees and the preparation of city and county bicycle and pedestrian transportation plans.

Education, Enforcement and Encouragement – The committee supported the recommendations developed in the matrix for these programs. Specific suggestions include:

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- Bicycle tourism offers great potential in the coastal region. There are already many people coming to St. Simons Island, Jekyll Island and other coastal attractions.
- Education is a big part of what's needed. Use all media: television, radio, signs, billboards, etc.
- One member suggested adding something more forceful after the message: 'Share the Road.'
- Chris Beaufait suggested a whole page in the Drivers Manual devoted to bicycle/motor vehicle interaction.
- "It all boils down to enforcement," said one committee member.
- There is a new state law about passing a disabled vehicle or anyone on the shoulder. It says to give a wide berth.
- Given the high growth rate in our region, we should encourage new developments to provide adequate facilities for biking and walking. It's part of the 'quality of life' that we should encourage and is highly desired especially by retirees who comprise a large part of our growth market.

Next Meeting

The next meeting will be a Public Meeting on January 20, 2005. The Draft Plan will be completed and distributed to the BPAC prior to that meeting. The final committee meeting related to the Regional Bicycle and Pedestrian Plan will be held on February 17, 2005.

Adjournment

The meeting adjourned at 8:00 PM.

Coastal Georgia Regional Bicycle and Pedestrian Plan

PUBLIC MEETING

Regional Bicycle and Pedestrian Plan

January 20, 2005
Electric Management Cooperative
Midway

Persons Present

Marsha Pierce, Coastal Health District, Brunswick
Terry Landreth, Turn2 Bicycle Center, Kingsland
Zoe Hardenbrook, GDOT District 5, Jesup

Staff Present

Mushtaq Hussain
Paul Smith

MEETING NOTES

Introduction

Paul Smith welcomed everyone to the meeting and summarized the agenda. He highlighted the importance of discussion and comments on the draft Coastal Georgia Regional Bicycle and Pedestrian Plan submitted to the Georgia Department of Transportation and provided to members of the Bicycle and Pedestrian Advisory Committee (BPAC) the first week of January 2005.

Paul Smith and Mushtaq Hussain distributed the revised executive summary and recommendations of the draft plan as handouts to the meeting participants. A letter dated January 20, 2005 from Karen Votava, Executive Director, East Coast Greenway Alliance, commenting on the draft plan was also provided to the attendees for their review. A PowerPoint presentation was also prepared for the meeting.

PowerPoint Presentation

Paul summarized the introduction and formation of the Bicycle and Pedestrian Advisory Committee (BPAC). He told the participants that Mushtaq and I have been very pleased with the participation of our Advisory Committee, which includes representatives of local governments, bicycle and pedestrian organizations and industries and the health community. The committee was very instrumental in assessing transportation needs for cyclists and pedestrians and in developing recommendations for improving bicycling and walking conditions and safety in the region.

Mushtaq gave a brief introduction about the various local bicycle and pedestrian plans collected and incorporated into the draft Regional Bicycle and Pedestrian Plan. He also presented the GIS analysis of the following:

- Existing and Planned Bicycle and Pedestrian Facilities
- Bicycle and Pedestrian Crashes
- Roadway Characteristics – Shoulder Widths of State Bicycle Routes
- Coastal Georgia Greenway Alternative

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Paul presented recommendations of the draft plan categorized into the four E's: 1) Engineering, 2) Education, 3) Encouragement, and 4) Enforcement.

Comments and Discussion

1. Zoe Hardenbrook from the GDOT district office in Jesup suggested that the RDC suggest potential bike routes on state roads in the rural counties. Mushtaq and Paul suggested using existing GIS coverages of community facilities and conservation land to identify concentrations of these trip attractors that are not currently served by existing state and local bicycle routes or the proposed Coastal Georgia Greenway. Zoe agreed with this approach. The rural counties will need to follow up, examine the routes and decide whether to designate them as bicycle routes consistent with existing GDOT procedures. This way whenever GDOT improves those roads, the bicycle and pedestrian provisions will be provided.
2. Marsha Pierce from the Coastal Health District discussed that adult and childhood obesity rates, which are very high in our region and in Georgia, should be indicated in the Existing Bicycle and Pedestrians Plans, Programs, and Use chapter. She further added that walking and biking for utilitarian purposes and recreation are considered an important part of a strategy to lower obesity rates and attendant medical costs.
3. Terry Landreth from Turn2 Bicycle Center in Kingsland was also very excited about actions to develop more facilities for biking and walking in the region. He agreed that we should explore the possibility of developing abandoned railroad corridor as an off-road path from Kingsland to Riceboro.
4. The meeting participants reviewed the letter of Karen Votava, Executive Director of the East Coast Greenway. They were supportive of the recommendations noted in the letter. Karen was supportive of the RDC recommendation for adding shoulders to Highway 17 to improve safety for all roadway users and to study alternatives for an off-road path in the coastal corridor, such as the abandoned rail corridor between Kingsland and Riceboro. Bicycle tourism is an important component of coastal tourism and could increase dramatically with improved facilities.

Adjournment

The meeting adjourned at 8:00 PM.

Appendix – C

Georgia Bicycle Traffic Law

Question: Bicycles should be operated like cars, right?

Answer: Yes and No.

In Georgia, as in most states, the bicycle is legally a "vehicle". This classification means that general vehicular traffic law applies to the operation of a bicycle. However the vehicular code and various regulations include many specific qualifications for specific classes of vehicles. Wherever the code or regulation uses the phrase "vehicle" that section applies to all vehicles, including bicycles. When the term "motor vehicle" is used, that portion does not apply to bicycles.

The following excerpts are those subsections of the traffic law that deal specifically with bicycle operation.

GEORGIA CODE UNANNOTATED

40-6-290 G

*** GEORGIA CODE SECTION *** 10/14/96

40-6-290.

The provisions of this part applicable to bicycles shall apply whenever a bicycle is operated upon a highway or upon any path set aside for the exclusive use of bicycles, subject to those exceptions stated in this part.

40-6-291.

The provisions of this chapter that apply to vehicles, but not exclusively to motor vehicles, shall apply to bicycles, except that the penalties prescribed in subsection (b) of Code Section 40-6-390, subsection (c) of Code Section 40-6-391, and subsection (a) of Code Section 40-6-393 shall not apply to persons riding bicycles.

40-6-292.

(a) A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto and shall allow no person to ride upon the handlebars.

(b) No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.

(c) No person shall transport a child under the age of one year as a passenger on a bicycle on a highway, roadway, bicycle path, or sidewalk; provided, however, that a child under the age of one year may be transported on a bicycle trailer or in an infant sling so long as such child is seated in the bicycle trailer or carried in an infant sling according to the bicycle trailer's or infant sling's manufacturer's instructions, and the bicycle trailer is properly affixed to the bicycle according to the bicycle trailer's manufacturer's instructions or the infant sling is properly worn by the rider of the bicycle according to the infant sling's manufacturer's instructions and such child transported in a bicycle trailer or infant sling is wearing a bicycle helmet as required under paragraph (1) of subsection (e) of Code Section 40-6-296.

(d) No child between the ages of one year and four years shall ride as a passenger on a bicycle or bicycle trailer or be transported in an infant sling unless the child is securely seated in a child passenger bicycle seat, bicycle trailer, or infant sling according to the child passenger bicycle seat's, bicycle trailer's, or infant sling's manufacturer's instructions and the child passenger seat or

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bicycle trailer is properly affixed to the bicycle according to the child passenger bicycle seat's or bicycle trailer's manufacturer's instructions or the infant sling is worn according to the infant sling's manufacturer's instructions.

(e) Violation of subsections (c) and (d) of this Code section shall not constitute negligence per se nor contributory negligence per se or be considered evidence of negligence or liability.

(f) No person under the age of 16 years failing to comply with subsections (c) and (d) of this Code section may be fined or imprisoned.

40-6-293.

No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicle shall attach the same or himself to any vehicle upon a roadway.

40-6-294.

(a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, except when turning left or avoiding hazards to safe cycling, when the lane is too narrow to share safely with a motor vehicle, when traveling at the same speed as traffic, or while exercising due care when passing a standing vehicle or one proceeding in the same direction; provided, however, that every person operating a bicycle away from the right side of the roadway shall exercise reasonable care and shall give due consideration to the other applicable rules of the road. As used in this subsection, the term "hazards to safe cycling" includes, but is not limited to, surface debris, rough pavement, drain grates which are parallel to the side of the roadway, parked or stopped vehicles, potentially opening car doors, or any other objects which threaten the safety of a person operating a bicycle.

(b) Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path has been provided adjacent to a roadway and designated for the exclusive use of bicycle riders, then the appropriate governing authority may require that bicycle riders use such path and not use those sections of the roadway so specified by such local governing authority. The governing authority may be petitioned to remove restrictions upon demonstration that the path has become inadequate due to capacity, maintenance, or other causes.

(d) Paths subject to the provisions of subsection (c) of this Code section shall at a minimum be required to meet accepted guidelines, recommendations, and criteria with respect to planning, design, operation, and maintenance as set forth by the American Association of State Highway and Transportation Officials, and such paths shall provide accessibility to destinations equivalent to the use of the roadway.

(e) Electric assisted bicycles as defined in Code Section 40-1-1 may be operated on bicycle paths.

40-6-295.

No person operating a bicycle shall carry any package, bundle, or other article which prevents him from keeping at least one hand upon the handlebars.

40-6-296.

(a) Every bicycle when in use at nighttime shall be equipped with a light on the front which shall emit a white light visible from a distance of 300 feet to the front and with a red reflector on the rear of a type approved by the Department of Public Safety which shall be visible from a distance of 300 feet to the rear when directly in front of lawful upper beams of headlights on a motor vehicle. A light emitting a red light visible from a distance of 300 feet to the rear may be used in addition to the red reflector.

(b) Every bicycle sold or operated shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level pavement.

(c) No bicycle shall be equipped or operated while equipped with a set of handlebars so raised that the operator must elevate his hands above his shoulders in order to grasp the normal steering grip area.

(d) No bicycle shall be equipped, modified, or altered in such a way as to cause the pedal in its lowermost position to be more than 12 inches above the ground, nor shall any bicycle be operated if so equipped.

(e)(1) No person under the age of 16 years shall operate or be a passenger on a bicycle on a

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highway, bicycle path, or sidewalk under the jurisdiction or control of this state or any local political subdivision thereof without wearing a bicycle helmet.

(2) For the purposes of this subsection, the term "bicycle helmet" means a piece of protective headgear which meets or exceeds the impact standards for bicycle helmets set by the American National Standards Institute (ANSI) or the Snell Memorial Foundation.

(3) For the purposes of this subsection, a person shall be deemed to wear a helmet only if a helmet of good fit is fastened securely upon the head with the straps of the helmet.

(4) No bicycle without an accompanying protective bicycle helmet shall be rented or leased to or for the use of any person under the age of 16 years unless that person is in possession of a bicycle helmet at the time of the rental or lease.

(5) Violation of any provision of this subsection shall not constitute negligence per se nor contributory negligence per se or be considered evidence of negligence or liability.

(6) No person under the age of 16 failing to comply with any provision of this subsection may be fined or imprisoned.

40-6-297.

(a) It shall be unlawful for any person to sell a new bicycle or a pedal for use on a bicycle unless the pedals on such bicycle or such pedals are equipped with reflectors of a type approved by the Department of Public Safety. The reflector on each pedal shall be so designed and situated as to be visible from the front and rear of the bicycle during darkness from a distance of 200 feet. The commissioner of public safety is authorized to promulgate rules and regulations and establish standards for such reflectors.

(b) This Code section shall not apply to any bicycle purchased prior to July 1, 1972, by a retailer for the purpose of resale.

40-6-298.

(a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this part.

(b) The parent of any child and the guardian of any ward shall not authorize or knowingly permit such child or ward to violate any of the provisions of this part.

40-6-299.

The Board of Public Safety is authorized to promulgate rules and regulations to carry this part into effect and is authorized to establish regulations for any additional safety equipment or standards it shall require for bicycles.

Return to Bicycle Georgia

Source: <http://www.serve.com/bike/georgia/galaw.html>